



UNIVERSIDAD DE MÁLAGA

FACULTAD DE FILOSOFÍA Y LETRAS

TESIS DOCTORAL

*Early Modern English Scientific Text Types:
Edition and Assessment of Linguistic Complexity in
the Texts of MS Hunter 135 (ff. 34r–121v)*

AUTOR: JESÚS ROMERO BARRANCO

DIRECTOR: JAVIER CALLE MARTÍN


PROGRAMA DE DOCTORADO EN LINGÜÍSTICA, LITERATURA Y TRADUCCIÓN

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UNIVERSIDAD
DE MÁLAGA

AUTOR: Jesús Romero Barranco

 <http://orcid.org/0000-0001-6263-3872>

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UNIVERSIDAD
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Facultad de Filosofía y Letras
Departamento de Filología Inglesa,
Francesa y Alemana
Javier Calle Martín
jcalles@uma.es

Málaga, 28 de agosto de 2017

En calidad de director y tutor de la Tesis Doctoral titulada 'Early Modern English Scientific Text Types: Edition and Assessment of Linguistic Complexity in the Texts of MS Hunter 135 (ff. 34r–121v)', realizada por D. Jesús Romero Barranco, doy el vistobueno para su lectura y defensa.

Javier Calle Martín

Campus de Teatinos, s/n. 29071- MÁLAGA. Telf. 952 13 17 86 Fax. 952 13
18 23

UNIVERSIDAD
DE MÁLAGA



To my mother, the bravest person I have ever known

To my father, for having been always by my side

To Paola, the best partner I have ever imagined

A mi madre, la persona más valiente que jamás conocí

A mi padre, por haber estado siempre a mi lado

A Paola, la mejor compañera que jamás imaginé

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Writing a PhD dissertation is a tough task, and every student who has faced this fascinating challenge should agree on the fact that it is an activity in which the PhD candidate is somewhat secluded, usually overwhelmed by the great number of books and articles to be read prior to the beginning of the work. Moreover, if we focus on the specific task of a PhD student who intends to do research in Manuscript Studies, we find that he may be in front of a witness that has been ignored for centuries, being about to be the first person to unveil the secrets that it may hide.

However, I must say that even though I have spent a huge amount of time on my own with books and articles, as well as with the manuscript with which this dissertation is concerned, I have not felt alone at all. This feeling is particularly owed to Dr Javier Calle-Martín, with whom I started working after I finished my Degree in English Philology. Through him, I took part in the projects mentioned above and had access to the early Modern English unedited material on which I have been working since then. Over the years, Javier Calle-Martín has been not only my teacher and my supervisor, demonstrating an impressive background in Historical Linguistics and a wide research experience, but also a good friend of mine, being always supportive and understanding in both academic and personal matters. He deserves sincerest gratitude.

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La redacción de una Tesis Doctoral es una tarea difícil, y todo estudiante que se haya enfrentado a este apasionante reto debería estar de acuerdo en que es una actividad en la que el doctorando está de alguna manera recluido, a menudo abrumado, por la gran cantidad de libros y artículos que leer. Además, si nos centramos en la tarea específica del estudiante que pretende hacer investigación en Estudios de Manuscritos, descubrimos que quizás se encuentre ante un manuscrito que ha sido ignorado durante siglos, estando a punto de ser el primero en descubrir los secretos que éste pueda albergar.

Sin embargo, debo decir que, aunque he pasado mucho tiempo entre libros, no me he sentido solo. Ello se debe especialmente al Dr. Javier Calle Martín, con quien empecé a trabajar cuando finalicé mi Licenciatura en Filología Inglesa. A través de él, formé parte de los proyectos bajo su coordinación y tuve acceso al material inédito en el que he estado trabajando desde entonces. Con el paso de los años, Javier no sólo ha sido mi profesor y mi supervisor, demostrando un amplio conocimiento en lingüística histórica y una gran experiencia en investigación, sino que también ha sido un buen amigo, siempre servicial y comprensivo tanto en asuntos académicos como personales. Se merece el agradecimiento más sincero.

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INTRODUCTION

The present PhD dissertation is entitled *Early Modern English Scientific Text Types: Edition and Assessment of Linguistic Complexity in the Texts of MS Hunter 135* (ff. 34r–121v). It studies early Modern English scientific writing, focusing on the edition, corpus compilation and assessment of linguistic complexity of two early Modern English medical texts types, i.e. a surgical treatise and a collection of medical recipes. For the purpose, a hitherto unedited volume, MS Hunter 135 (ff. 34r–121v, henceforth H135) has been selected. This witness is appropriate for such a study as it contains a surgical treatise and a collection of medical recipes, allowing for the comparison of both text types in the History of English.

Research framework

This research is part of two different projects. The first is an I + D + I national research project supervised by Dr Javier Calle-Martín (University of Málaga), funded by the Spanish Ministry of Economy and Competitiveness (project FFI2014–57963–P) and entitled “Corpus electrónico de manuscritos ingleses de índole científica: el período moderno temprano (1500–1700). This project is a continuation of two previous national projects:

- “Corpus electrónico de manuscritos ingleses medievales: textos científicos y técnicos”, funded by the Spanish Ministry of Science and Innovation (project FFI2011–26492) and supervised by Dr Javier Calle-Martín.
- “Desarrollo del corpus electrónico de manuscritos medievales ingleses de índole científica basado en la colección hunteriana de la Universidad de Glasgow”, funded by the Spanish Ministry of Science and Innovation (project FFI2008–02336/FILO) and supervised by Dr Antonio Miranda-García.

The second project, also supervised by Dr Javier Calle-Martín, is funded by the Autonomous Government of Andalusia, entitled “Desarrollo del corpus electrónico de referencia de inglés científico-técnico: el período moderno temprano, 1500–1700” (project P11–HUM7597). This project is a continuation of a previous project entitled “Corpus de referencia del inglés científico-técnico en el período medieval inglés” (project P07–HUM–2609), also funded by the autonomous Government of Andalusia.

These projects pursue a twofold objective: a) the digitisation and diplomatic transcription of early Modern English hitherto unedited scientific treatises; and 2) the subsequent compilation of a POS-tagged corpus, which may be safely used as the input for the automatic retrieval of linguistic information.

Socio-historical context

H135 was written in the first half of the sixteenth century, at the very beginning of the early Modern English period, a crucial stage in the history of English with regard to linguistic standardisation (Taavitsainen and Pahta 1998: 162; Gotti 2001: 221).

From a socio-historical viewpoint, different social strata are found, with the royal family at the upper level and the poor at the lowest. Between these two, however, other layers are observed, whose position would directly depend on their possession (or not) of land (Sharpe 1997: 181–204). Furthermore, there were other professions through which people could make a living, law and medicine standing out. Among the medical practitioners, we may distinguish between learned (i.e. physicians, surgeons and apothecaries) and amateur practitioners (i.e. village wise women, white witches, quackers and empirics, among others). While the former were acquainted with the medical works of classical authors and practised medicine as a profession, the latter based their knowledge on popular culture and not always practised medicine exclusively, but in combination with other professional activities (Copeman and Charles 1960: 32; Wear 2000: 26).

The distinction between learned and not learned practitioners is crucial for the understanding of the medical texts produced in the period. While learned practitioners started to produce medical texts in the vernacular with the translation of Latin, French, Greek and Arabic material into English, the latter produced texts orally transmitted from generation to generation, this tradition going back to the Old English period (Taavitsainen 1994: 329, 2002: 205; Taavitsainen and Pahta 1998: 157; Pahta 2001: 208). In addition, the early Modern period is particularly important in the history of English medical writing, as it is the moment in which the production of these texts evolved from scholasticism to empiricism, that is, from the medieval scholastic science that relied on classical authors such as Galen or Hippocrates, to new ways of constructing knowledge that were based on observation and cognition (Taavitsainen 2002: 204).

Edition and corpus compilation

The edition of historical texts has been of paramount importance in order to analyse the way in which science was produced and disseminated at the time. Thus, the labour of the editor is important inasmuch as different decisions will eventually produce different editions, which will ultimately have different usages. According to Tanselle, there are two basic procedures: 1) the editor maintains a considerably passive role of preserver and purveyor; or 2) the editor becomes the active repairer of the damages wrought by time (1995: 16). From the historical linguistics viewpoint, therefore, the first methodology is recommended, as linguists are offered the primary source to study the accidentals of a language produced in a particular period, as well as the practices of scribes (or writers).

Regarding the edition in the present PhD dissertation, semi-diplomatic principles have been followed so as to provide the linguist with a faithful reproduction of the original, editorial intervention kept to a minimum. Therefore, the edition can serve as the input for linguistic research (orthography,

morphology, etc.) as well as for research in other areas such as the history of medicine, among others. The spelling of the text has been normalised to make it processable by Present-day English linguistic tools and then POS-tagged in order to carry out automatic morpho-syntactic searches. In addition, an electronic edition has been prepared (freely available online at <<http://modernmss.uma.es>>) where the original images of the manuscript can be viewed together with its semi-diplomatic transcription.

Linguistic complexity

Complexity has been defined as “a matter of the number and variety of an item’s constituent elements and of the elaborateness of their interrelational structure, be it organizational or operational” (Rescher 1998: 1). There are many studies on linguistic complexity in the literature, both synchronic (Crystal and Davy 1969; Biber 1992; Bhatia 1993; Danet 1980) and diachronic (Hiltunen 1990; Lehto 2015). These studies have focused on contemporary English as well as English produced in other historical periods, together with particular text types. However, as far as I have been able to investigate, no such study has been carried out taking early Modern English medical writing as the input. Furthermore, these studies have focused separately on different aspects of the language in order to ascertain their level of linguistic complexity at a particular linguistic level. These linguistic aspects range from text structure to the use of subordinate constructions or the passive, among others.

In the present PhD dissertation, consequently, these elements are combined, allowing for an analysis at different linguistic levels. Thus, text structure and text layout are analysed at the macro-linguistic level, while a number of linguistic features are studied at the micro level (Biber 1992). This analysis is relevant not only for the assessment of the degree of linguistic complexity of two early Modern English medical text types, but also for the identification of

characteristic linguistic features of both text types, i.e. the use of passives, conditional adverbial subordination, etc.

Objectives

Taking into consideration the previous sections, the present PhD dissertation has been conceived with following objectives:

1. The socio-historical analysis of the period in which H135 was produced.
2. The semi-diplomatic edition of H135 (ff. 34r–121v).
3. The electronic edition of H135 (ff. 34r–121v), freely available at <<http://modernmss.uma.es>>.
4. The preparation of a glossary of the words in the texts (nouns, verbs, adverbs and adjectives).
5. The compilation of a normalised and POS-tagged corpus of early Modern English medical writing amounting up to 38,830 words, which will eventually be incorporated to *The Málaga Corpus of Early Modern English Scientific Prose*.
6. The analysis of the linguistic complexity in the two texts in H135, i.e. a surgical treatise and a collection of medical recipes.

The justification for these objectives lies in the fact that H135 is a hitherto unedited manuscript, which will be made freely available for research in linguistics and other fields (history of medicine, etc.).

Methodology

The methodological procedure could be divided into five subsequent stages:

1. Socio-historical analysis: the historical context of the witness has been studied in order to detect the scribes' motivations as well as the readers' needs.
2. Edition: a semi-diplomatic transcription in which editorial intervention is practically non-existent.
3. Glossary preparation: a glossary containing the nouns, verbs, adverbs and adjectives in the texts. For the purpose, these words have been lemmatised according to the *OED* and the *MED*. Thus, each entry provides a headword (the lemma), together with the word class, the meaning, and the different allographs with their number of hits in the text.
4. Physical description of the witness: a physical description including a palaeographic and a codicological analysis of the original witness.
5. Corpus compilation: the previous material is taken as the input for the compilation of a normalised and POS-tagged corpus of early Modern English medical writing.

Structure of the work

The first chapter is concerned with the socio-historical context of the manuscript under analysis. For the purpose, the chapter is divided into four different parts. The first deals with the society in Tudor England as well as the medical profession. The second sketches the situation of early English medical writing, where the transition from Middle English to early Modern English is analysed. Finally, the third and fourth parts describe the surgical treatise and the collection of recipes, respectively, as original written records of early Modern English medical writing produced at the time.

The second chapter deals with the contents, ownership and physical description of H135. The edited material is housed within ff. 34r–73v (the surgical treatise) and ff. 74r–121v (the collection of recipes). In terms of ownership, three

different owners have been identified, namely William Hunter, Leonardus Cooke and Henry Swinburne. Finally, a codicological and palaeographic analysis of H135 is carried out.

The edition itself is offered in Chapter 3, where the work of the editor is described by way of the enumeration of the kinds of edition that can be produced, whether critical or non-critical. More importantly, the editorial procedure is described, and it can be found that it is a semi-diplomatic edition where editorial intervention has been kept to a minimum, accompanied by two critical apparatuses. In addition, a glossary containing the words in the text has been provided, which offers the headwords under which the different allographs (together with their number of hits in the text) of each word are included. In addition, the word class and the meaning are also provided.

Chapter 4 explains the transition from the transcribed text to the normalised and POS-tagged corpus. Thus, an introduction to corpus linguistics is supplied, including its relevance in historical linguistics as well as the compilation of a historical corpus (restrictions, processing of historical corpora and corpus annotation).

Chapter 5 assesses the level of linguistic complexity of the surgical text and the collection of recipes. The level of linguistic complexity is carried out considering the macro- level (text structure and text layout) and micro-level (linguistic features denoting reduced complexity and linguistic features denoting increased complexity). The chapter ends with an enumeration of the characteristic linguistic features of both the surgical treatise and the collection of recipes.

Finally, Chapter 6 offers the conclusions in the present work and Chapter 7 provides the list of references.

CHAPTER 1

THE TEXTS AND CONTEXT IN MS HUNTER 135

Everything that physically surrounds a text in its manuscript is potentially significant [...] Contextual information might give clues as to whether a text was meant to be read silently or listened to, how it might be interpreted, its contemporary readership and ownership and signal its status, that is whether it was considered an authoritative work or a less prestigious text (Caie 2008: 10–11).

The study of context is particularly important when working with historical manuscripts, as information about the needs of readers and the motivations of writers may help fully decode the message in the witness. Consequently, the present chapter describes the socio-historical context of H135. For the purpose, the first section aims at the description of the socio-historical situation in which the witness was created, paying special attention to the medical profession and the people involved in the practice of it. After that, the evolution from late Middle English to early Modern English scientific writing is provided, together with the description of the two texts under study in the present dissertation.

1.1. The Socio-historical context of H135

The early Modern period has a great importance not only in terms of the standardisation of the English language but also in terms of the transition from the scholastic thought to the pragmatic or empirical way of thinking (Taavitsainen and Pahta 1998: 162; Gotti 2001: 221).

H135 was written in the sixteenth century, at the dawn of the early Modern English period, after the proclamation of Henry VII as king of England

in 1485.¹ The society of the time was the product of the devastation of diseases such as the Black Death, whose ravages left England with a population of barely 2.6 millions in 1525. It was from this year that the population began to grow steadily, and in just 75 years it increased to 4.10 millions (Guy 1984: 257; Lockyer 2005: 139).²

This increase of the population triggered the agglutination of people in cities and towns all around the country.³ The city of London is a case in point of this growth of cities in Tudor England, enlarging its population from 60,000 to 225,000 inhabitants in just a century. This increase was mainly due to immigration,⁴ since the death rate in the city exceeded that of live births. People saw opportunities and the possibility of a better-paid job in London, where huge volumes of coal, grain and other commodities were shipped from other parts of the country, Europe, and also overseas. In addition, there were other smaller

¹ This year marks the end of the Wars of the Roses between the houses of York and Lancaster, which had begun in 1455 after Edward, duke of York, claimed the English throne and began his reign as Edward IV in 1461. However, the Wars of the Roses would end with a Lancastrian, Henry Tudor, Earl of Richmond, as king of England, after having defeated and killed Richard III at the battle of Bosworth on 22 August 1485 (Lockyer 2005: 1).

² Nicholls warns that at the beginning of the early Modern period population estimates were based on tax and probate records, whose accuracy was not reliable inasmuch as they only offered information about the more prosperous men and women. From 1538, however, the historian is able to extract more trustworthy demographic information from parish registers, maintained by incumbents up and down the land (1999: 2).

³ All towns shared common features and offered the same facilities: shops with varied merchandise, schools, taverns, entertainment, businesses such as tanning and brewing and smithies operating from backyards or domestic dwellings. In addition, the country man may as well find professional services, doctors and lawyers for example (Nicholls 1999: 4).

⁴ According to Lockyer, people went to London for diverse purposes. Lawyers went there because the major law courts were located at Westminster; government servants had to be resident there, at least for part of the year, and so did an increasing number of merchants, for during the Tudor period London became the main centre of English commerce (2005: 150).

towns as Bristol, York or Newcastle, among others, which had a population of around ten thousand inhabitants (Nicholls 1999: 3; Lockyer 2005: 150).

The structure of the English society during the sixteenth century was characterised by the typical pyramidal shape in which the royal family was at the upper level and the poor stood at the lowest. There were, however, some other layers in-between these two opposed poles, among which landed orders and non-landed élites could be distinguished (Sharpe 1997: 181–204). Within the landed orders, the aristocracy and nobles were immediately below the royal family and they were small in number, amounting up to less than fifty members by 1547, because of the numerous executions after Henry VII became king;⁵ next on the social ladder was the gentry, who did not have to earn their living by manual labour either;⁶ below the gentry were the yeomen, possessors of freehold land worth at least forty shillings a year; husbandmen were those who farmed anything from five to fifty acres and cottagers just one or two; the landless depended on wages to make a living; and the poor were without any means of subsistence and depended upon private and parish charity. Interestingly enough, although the amount of land held by a family was a token of its social status, their wealth also

⁵ Soon after the coronation of Henry VII, “the parliament passed an act of attainder against the late king himself, against the duke of Norfolk, the earl of Surrey, viscount Lovel, the lords Zouche and Ferrars of Chartley, Sir Walter and Sir James Harrington, Sir William Berkeley, Sir Humphrey Stafford, Catesby, and about twenty other gentlemen, who had fought on Richard’s side in the battle of Bosworth. The new king was therefore literally eliminating any likely threat to his actual position” (Hume 1984: 12).

⁶ Sixteenth- and seventeenth-century observers used ‘nobility’ (or the Latin *nobilitas*) to describe peers and gentry alike. They made a distinction between the *nobilitas major* (for the nobility and the upper gentry as knights and squires) and the *nobilitas minor* or the lesser gentry (Sharpe 1997: 158).



depended on other circumstances, such as recusancy.⁷ Consequently, it was not rare to find areas in which agriculture was profitable enough to make a living as well as areas in which additional resources were needed (Lockyer 2005: 155–157).

The non-landed *élite*⁸ was integrated by professions that had nothing to do with the possession of land, which would entail the rising of the middle class during the early Modern period. This emergence of the middle class was mainly led by merchants, who were “the dominant element in the money-making sectors [as] wholesale traders in home or export markets and buyers and sellers of raw materials, goods and overseas imports” (Sharpe 1997: 181). This new class, together with other professional men, belonged to a different scale irrespective of land’s holding, and contemporaries used to place them above the status of yeomen, close to the gentry.⁹ Nevertheless, such a status for a relatively new class could be explained from three different perspectives: first, they had familiar ties to the landed orders, as merchants were recruited from the youngest generations of the gentry;¹⁰ second, they were able to accumulate more substantial wealth in

⁷ The *OED* defines recusancy as “refusal, especially on the part of Roman Catholics, to attend the services of the Church of England; from c 1570 to 1791 this was punishable by a fine, and involved many disabilities.”

⁸ Professions (lawyers, doctors, merchants of all kinds) never fitted easily into traditional models of society based on landownership, although the professionals themselves made every effort to conform, established town tradesmen persisting in describing themselves as yeomen, and office-holding citizens expecting to be addressed as gentlemen. If one social trend is apparent in the later sixteenth century, it is “that towards a greater diversity of elites – of land, of church, of trade, of industry and of law” (Nicholls 1999: 10).

⁹ The economic changes of the sixteenth and seventeenth centuries made shifts in the social order almost inevitable. The polarisation of villages, and the growing prosperity of village notables, undermined the existing structure, and social hierarchy was often heatedly contested (Amussen 1993: 137).

¹⁰ According to Wrightson, “careers in trade were usually chosen as appropriate opportunities for those younger sons of the gentry who could not set up independently on estates. Thus, of more than 8,000 apprentices bound to the members of fifteen London companies in the years 1570–

cities than yeomen in the countryside; and third, they held positions in local administrations that could be compared to those monopolised by the gentry in the countryside (Wrightson 1982: 27-28).

The clergy also deserves mention, as it was one of the most developed professions of the period. The clergy could be divided into educated, non-resident beneficed clergy and the unlearned, resident parochial clergy (further divided into the various types of curate, vicars and rectors). The picture of the average clerical living is, however, difficult to draw, as the variations were enormous between parishes, the income of them depending on the size and fertility of the parish and the local economic situation (Sharpe 1997: 190).

Apart from the merchants and the clergy, there were other professions that also offered opportunities, such as those linked to law and, to a lesser extent, medicine. University training was only needed if the apprentices aspired to the higher degree echelons in any of these professions. Thus, it is no surprise that some three quarters of common lawyers came from the gentry, as fees had to be paid at university (Wrightson 1982: 29). The number of students started to grow in the Tudor period to the point that by 1600 universities admitted 400 and 500 men per year, an acceptable figure if compared to the 150 men admitted per year by both Oxford and Cambridge during the Middle Ages (O'Day 1995: 69).

Professions related to the field of law were divided into barristers and attorneys, the former studied the law and pleaded in court and the latter “advised litigants involved in or contemplating suits in the Westminster courts, looked after the legal aspects of local commercial or land transactions, drew up conveyances, contracts and bonds, and supervised local manorial courts” (Sharpe 1997: 196).

1646, some 12.6 per cent were the son of knights, esquires and gentlemen. In addition, less than 10 per cent of the great merchants of Elizabethan and early Stuart London had been born in the city” (1982: 28).

1.2. The medical profession in early Modern England

The status of Medicine in England during the sixteenth century was marked by the geography and the social status of patients, which helped determine their chances of life. Thus, towns and cities presented higher mortality rates than the countryside,¹¹ as the density of population, housing and communication routes also brought in diseases (Slack 1979: 17; Porter 1987: 5; Wear 2000: 12). In these environments, there were years of “exceptionally high mortality, when death rates in villages and towns doubled or trebled and the normal life of local communities was totally and tragically disrupted” (Slack 1979: 11). Social status, in turn, was decisive inasmuch as the poor could hardly afford the fees of surgeons or physicians, and the parish welfare support would usually pay their treatments.

When it comes to the people involved in health care in early Modern England, ‘the Medical Marketplace’ has been employed in the literature since the 1980s to label the context of medicine in the period. This term aimed to suggest that the boundaries that separated the labour of physicians, surgeons and apothecaries were often blurred; and that there were many others who also practised medicine, both for money and/or altruism. Given this situation, it could be said that within this medical marketplace, “services were advertised and sold to those who cared to shop [and] patients had relative freedom to choose the medical practitioners they liked, [...] selecting therapies and therapists according to their estimation of the practitioner’s effectiveness or manners, not to mention cost” (Jenner and Wallis 2007: 2).¹²

¹¹ Mortality was so high that “the populations of cities such as York, Bristol, Norwich, Newcastle and, most famously, London, were not self-sustaining and only the constant flow of people from the countryside allowed them to grow” (Wear 2000: 12).

¹² By conceiving the sick person as a consumer in seek of health care, both commercial and non-commercial curers could be included under the broad term ‘medical marketplace’ (Jenner and Wallis 2007: 7).

Two main groups of practitioners can be found in the period, those unlearned practitioners who offered cures for money (namely village wise women,¹³ white witches, quackers or empirics, among others) and the expensive physicians at the top end of the medical market (Porter 1987: 11; Wear 2000: 21–22). The unlearned practitioners were mostly the women in a family, who had traditionally been the sources of medical knowledge and treatment. Among amateur practitioners,¹⁴ “some practised full-time and some part-time, some for money and some in an act of charity, they were called quackers or empirics, and their existence demonstrates that medical expertise was widespread across society” (Wear 2000: 21–22). These practitioners were mainly found in towns and villages, where the presence of university trained physicians was scarce and people were financially unable to move to cities to visit them.

From an administrative standpoint, the sixteenth century is regarded as a crucial century in the history of English medicine, as the College of Physicians was founded in 1518 and the London guilds of barbers and surgeons were finally united in 1540. The College of Physicians had “a membership of fellows,

¹³ Women played a substantial part in medicine in sixteenth-century London [...] Apart from occupying posts and hospitals, taking on public health duties during epidemics, and collecting the information for the bills of mortality, women were recognized as unlicensed apothecaries and surgeons. Proof of their activity is the record of the College of Physicians reporting that twenty-nine female practitioners were prosecuted between 1550 and 1600 (Pelling and Webster 1979: 186–187).

¹⁴ Thousands of other people at this time made a living, or topped up their income, from medicine. Grocers and pedlars sold drugs. Blacksmiths and farriers drew teeth and set bones. Itinerants toured the country, selling bottles of brightly-coloured ‘wonder cures’ and moving on to the next town fast. Other travelling doctors possessed genuine skills in treating eye, teeth or ear complaints, thus performing a useful service in the days before business was brisk enough to support permanently (Porter 1987: 14). Empirics, mountebanks, herbalists, astrologers and uroscopists offered their services “either as itinerants or from fixed locations, advertising themselves as cheaper than the physicians” (Wear 2000: 22).

candidates and licentiates who were admitted by examination, whilst the barber-surgeons and apothecaries granted the freedom of their guilds after apprenticeship and examination” (Wear 2000: 25).¹⁵ The creation of these two organizations established a line between unlearned amateur practitioners and learned practitioners.

This event marks the beginning of medicine as a proper profession. The chief functions of the College were academic, administrative and medico-political. In 1553 Queen Mary granted to the President of the College of Physicians the power to fine or commit certain categories of offenders such as apothecaries who sold defective drugs, hence the importance of this organization, which was to regulate the practice of medicine in the city (Copeman and Charles 1960: 25–27). A different picture was nevertheless observed in villages and the countryside, where the geographical limits of the licensing bodies allowed the proliferation of unlicensed practitioners who had no rigid uniformity in medical knowledge and practice (Wear 2000: 27).

The body of learned practitioners was integrated by physicians, surgeons and apothecaries. Physicians were higher in rank, as they were university trained. They had to study medicine based on classical sources for seven years after taking their BA and MA degrees. Then, they could also go abroad to Italian, French or Dutch universities and acquire an MD degree in less than a year. Finally, they gained practical knowledge by apprenticeship with a more experienced physician (Copeman and Charles 1960: 32; Wear 2000: 26).

¹⁵ In this vein, Pelling and Webster state that, although the College of Physicians somewhat regulated the profession of physicians, it lacked organization in its first stages, as “not only was it unable to secure the control of medical practice throughout the nation granted in the 1523 statutes, but it was slow to consolidate its position in London [...] The College contributed little to medical education and scholarship until the 1580s [and] their primary concerns related to fastidious details of internal management and the protection of their monopoly against the swelling tide of unlicensed practitioners” (1979: 168).

While physicians were concerned with the theoretical knowledge in books and the explanation of the phenomena of nature, being little concerned with practical applications and techniques, surgeons employed skills which were generally hereditary and lacked a proper theoretical background.¹⁶ Among their duties, they performed amputations, fracture-settings, the removal of tumours and trephining, as well as lithotomy and plastic surgery.¹⁷ Given the need of the knife for the accomplishment of these treatments, “surgery and barbering had long been yoked together within the guild system, until the creation of the Barber Surgeons Company of London in 1540” (Porter 1987: 11–12).¹⁸ Surgeons were generally unlatined, which prevented them from gaining professional equality with physicians, who radically opposed to vernacular writings, partly because they wanted to maintain their supremacy (Copeman and Charles 1960: 37–39).

Apothecaries or druggists constitute the third group of learned practitioners, who were “the physician’s underling, as they dispensed the prescriptions of physicians. They regularized their professional status almost a century later than physicians and surgeons with the foundation of the Apothecaries Society in 1617, thus becoming independent from the Grocers’ Company, “which was the official monopolist of the import drug trade at this time” (Copeman and Charles 1960: 45; see also Pelling and Webster 1979: 178).

¹⁶ The role of the university-trained physician quite often took the form of dietician, spiritual counsellor and general confidant rather than that of medical practitioner in the strict sense of the word. He had, of course, been educated in a tradition which regarded all aspects of human life as the legitimate preserve of medicine, and which, moreover, left the nuts and bolts of surgical procedure to craftsmen rather than academics (Rawcliffe 1995: 112).

¹⁷ The surgeons were legally limited to the use of external medicines (exclusively administered by physicians), despite their repeated attempts to overrun this limitation (Wear 2000: 217).

¹⁸ Candidates applying for admission to the Barber-Surgeons’ Company were required to have served the statutory period as apprentices and to satisfy the examiners that they were “well exercised in the curing of infirmities belonging to surgery of the parts of man’s body commonly called the anatomy” (Pelling and Webster 1979: 175).

They worked from their shops and their training was based on apprenticeship rather than university. Their advantage on medicines and drugs over physicians made them prescribe on their own authority, a fact that created rivalry with physicians (Porter 1987: 12).

The multiplicity of layers within the labour and jurisdiction of medical practitioners in Tudor England favoured the production of texts for them to use, the genres varying from theoretical treatises on anatomy or surgery to more popular lists of remedies or books on prognostication. The audiences of these texts varied, and H135 demonstrates that the same person could be interested in both theoretical knowledge (such as the treatise on surgery) and popular writings (such as the collection of medical recipes).

1.3. Scientific writing in early English

The first extracts of scientific writing in English can be traced back to the Old English period, where astrological and computational treatises of the calculation of time, herbals, and medical texts have survived. According to Voigts, “four long Old English medical works survive: the *Læcebok* (Bald’s Leechbook), *Lacnunga*, *Peri Didaxeon* and *Herbarium Apulei*” (1979: 250).¹⁹ These texts make up the earliest body of vernacular medical texts in medieval Europe and could be labelled as remedy books, as they contain recipes, rules of health, charms and other related

¹⁹ The *Læcebok* is made up of three collections of medical recipes that seem to derive from the court of Alfred the Great, contained in a manuscript from the mid-10th century (British Library Royal 12 D. xvii, fols. 1–127v); *Lacnunga*, which means “healings” or “cures”, differs from the other texts in its high percentage of charms and other magical elements and is contained in a codex written in the late 10th or early 11th century (British Library Harley 585, fols. 130–151v and 157–193); *Peri Didaxeon*, “Concerning Schools of Medicine”, is found in a manuscript which may be as late as 1200 (British Library Harley 6258b) and the question of whether the language of this text is late Old English or early Middle English is yet unresolved; the *Herbarium Apulei* is the Old English translation of a late antique herbal and is preserved in four different manuscripts (Voigts 1979: 250–251).

materials. After Old English, there is a gap before the emergence of the scientific genre which would cover almost the entire Middle English period (Voigts 1979: 251; Taavitsainen 2002: 205–215).

1.3.1. The late Middle English period

The linguistic situation of mediaeval England has been described by Pahta as multiglossia, that is, the coexistence of different linguistic varieties with separate functions. Thus, Latin was the most prestigious language, being used both at Church and universities; French had a mixed usage, as it was used in administration as well as in ordinary everyday interaction among the French-speaking population; and English was restricted to interaction in domestic and causal domains (Pahta 2001: 213).²⁰ This multilingualism is reflected in the large number of manuscripts containing Latin, French and English that have survived, “providing evidence of polyglot discourse communities comprising writers and users of these documents” (Pahta 2004: 74). This phenomenon was defined by Heller as code-switching, that is, the use of two or more languages in the same communicative act (1988: 1). Code-switching’s main domains were medicine and religion and they could be used with a text-organising function, and for separating texts or sections or texts and metatexts (Pahta 2004: 81).

In this context, medicine was concerned with the maintenance of health and the treatment of diseases, and the medical practitioner had access to a corpus of varied material which included

Latin versions of lengthy treatises by Galen on diseases, symptoms, and treatment; synoptic works used as academic textbooks [...]; general treatises

²⁰ Pahta also states that the majority of the population was undoubtedly monolingual and only spoke English, but for the higher and educated parts of the society, monolingualism must have been rare. However, in a multilingual context in which the three languages involved present great internal variation, it is often difficult to draw a line between borrowing and switching, especially in the case of embedded single lexical items (2004: 74–79).

on practical medicine; collections of opinions on specific cases by famous physicians (*consilia*); guides to medical terminology; manuals on techniques of phlebotomy; directories of ingredients for medicines; collections of medicinal recipes; color charts to aid in diagnosis by inspecting urine; calendars and tables for use in astrological medicine; and handbooks on particular subjects such as poisons or theriac (Siraisi 1990: 118).

During the last part of the fourteenth century, the translation of the Latin, Greek and Arabic scientific material into the vernacular started to proliferate, a fact that made English eventually become the language of science (Taavitsainen 1994: 329, 2002: 205; Taavitsainen and Pahta 1998: 157; Pahta 2001: 208).²¹ Until this period Latin had been, and still was, the language of science *par excellence*, although its position as the vehicle for the transmission of knowledge was about to be undertaken by the English language. Thus, while in the initial phases of the process English would occur together with Latin and/or French in bi- or trilingual volumes, by the end of the fifteenth century “there was a full range of vernacular medical texts available in English-language manuscripts in which Latin played little or no role” (Pahta 2001: 209).²² This scientific language switch, however, had its social consequences. On the one hand, knowledge would be available “for a wider readership, namely unlatined people” (Pahta and

²¹ It is only from 1350 that we can trace what is sometimes called the “triumph of English” in the reappearance of English in legal proceedings, guild records, courtly literature, encyclopedias, religious controversy, as a vehicle for – although not subject to – childhood instruction, and – of course – in medical writing (Voigts 1982: 39). Taavitsainen, in turn, assures that the process of vernacularisation in England took place “on a broad front, including administration, the Wycliffe translations of the Bible and other Lollard texts, fiction, with Chaucer’s work establishing the literary canon, and scientific and utilitarian writing” (2002: 205).

²² Pahta and Taavitsainen distinguish three phases in the vernacularisation of English: 1375–1475, 1475–1550, and 1550–1700. See Taavitsainen and Pahta (2004) for the period 1375–1500, that is, late Middle English; and Taavitsainen and Pahta (2011) for the period 1500–1700, i.e. early Modern English.

Taavitsainen 2004: 1-2). On the other, the transition from Latin to Middle English would join the relatively few university-trained physicians, who understood Latin, from the unlatined ones, i.e. the on-the-job trained surgeon, the barber-surgeon or the apothecary, among others (Robbins 1970: 394).

Several attempts have been made in order to draw an adequate classification of mediaeval scientific writing. Thus, Robbins (1970) divided it into three main categories: prognosis,²³ consisting in the astrological determination of the possibility of effecting a cure and the most favourable times for treatment; diagnosis, which was carried out by the analysis of the urine;²⁴ and treatment, consisting in giving preparations derived from herbs, of bloodletting, or other medications of an empirical kind. Voigts, in turn, assures that Robbins' subject matter classification is not particularly consonant with the technology of mediaeval medical practice, arguing that text types such as bloodletting, surgeries or long compendia are difficult to categorise, as they usually cover more than one of the branches outlined in Robbins' classification (Voigts 1984: 322).

A taxonomy of scientific writings based on the intended audience of the texts is also problematic inasmuch as there are "many cases for which we do not

²³ There are four subcategories in Middle English prognostic material according to Means (1992): the electionary, the most important of all prognostic texts, is a guide for choosing (or electing) activities according to the most favorable astrological conditions; the lunary (from Latin *luna*) is very much related to the electionary as they both focus on planetary influence, although the lunary selects only one planet, the Moon; the destinary (from Latin *destinaria*) or horoscope, a group of prognostications based upon a time of birth, determining destiny; and the questionnaire, which is only concerned with specific questions, who and how they are asked, and the means by which they may be answered.

²⁴ Whereas Robbins found "dozens of Middle English prose urinologies" in his survey of more than 350 Middle English medical MSS (399), a search of the Voigts-Kurtz database of *Scientific and Medical Writings in Old and Middle English* under the subject category "Urine and Uroscopy" yields 408 Middle English hits (Tavormina 2005: 43; Calle-Martín 2012: 243-244). This gives a clear account of the importance of this kind of literature in mediaeval England.

have enough information to posit the intended reader or user of a given book” (Voigts 1982: 43). Furthermore, the ownership of some manuscripts is every now and then surprising, and it is not rare to find popular material owned by a university-trained royal physician as John Argentine or a treatise on malfunction of members and humours being Englished for a barber (Voigts 1984: 322).

In order to draw a more accurate classification of Middle English prose medical texts, Voigts (1982: 44) proposed a division between academic medical texts (adhering to a technical source) or popular remedy book (following the tradition on *receptaria*).²⁵ Apart from the central theme of these different categories, they also present divergences in their tradition. While academic medical texts follow Latin exemplars and imitate their style,²⁶ remedy books are somehow less dependent on these foreign exemplars, as their tradition was well established in Old English (Görlach 1992: 747; Taavitsainen 1994: 330; Taavitsainen 2001: 141). This tradition can be observed in the freedom with which remedies and guidebooks were created, as their production depended upon the needs of writers and/or readers and could contain remedies related to different topics (Taavitsainen and Pahta 1998: 159). This classification was also adopted by Taavitsainen and Pahta (1998) in their approach to the vernacularisation of scientific writing in late mediaeval English, arguing that “these texts mostly originate in learned circles and belong to the academic tradition; yet they have a place among practical sciences as surgery was a craft and the books were intended

²⁵ In this classification, Voigts admits that this division is part of a continuum, and some texts such as treatises on uroscopy or phlebotomy “may well occupy an intermediate position” (1982: 44).

²⁶ Translators made great efforts to polish and enrich the target language [English], and transfer the already established conventions and features of Latin scientific writing into English [...] They “struggled with many difficulties in both syntax and lexicon to find adequate expressions in English, as scientific writing in the vernacular was new and new conventions had to be created” (Taavitsainen and Pahta 1998: 158–159).

for practical use, sometimes with detailed instructions and even illustrations” (Taavitsainen and Pahta 1998: 159).²⁷

Approaches	Taxonomies
Robbins (1970)	Prognosis
	Diagnosis
	Treatment
Voigts (1982)	Academic medical texts
	Popular remedy books

Table 1.1. Evolution of the taxonomies of late Middle English scientific writing

These writings are characterised by a scholastic thought-style,²⁸ which would influence the way in which they were created, showing preferences at the interpersonal level in the involvement features, at the textual level in the way of argumentation and overall rhetorical organisation, and at the ideational level in the modality knowing. This mode of knowing has also been called the quotative (Palmer 1986: 51), as it was basically the collection of the different opinions of important authorities in the field, no other evidence being necessary to justify them. Thus, medieval scholastic science is built on hearsay, with language as the only source (Taavitsainen and Pahta 1998: 162–163; Taavitsainen 2002: 206–207).

1.3.2. The early Modern English period

The beginning of the early Modern period is marked by a change in the production of science, shifting from the medieval scholastic science that relied on

²⁷ In terms of the audience of these different text types, Taavitsainen and Pahta argue that “university medicine was for physicians of the highest class, surgical books were for surgeons and barber-surgeons, and remedy books for a large and heterogeneous group including medical practitioners of all classes and lay people” (1998: 160).

²⁸ Scientific thought-style can be defined as “the underlying scientific concepts, objects of enquiry, methods, evaluations and intellectual commitments related to the epistemology of science” (Crombie 1994: 5–6; Pahta and Taavitsainen 2011: 2).

classical authors such as Galen or Hippocrates, to new ways of constructing knowledge based on observation and cognition.²⁹ In other words, if at the beginning of the sixteenth century scholars were convinced that knowledge was on authoritative texts, by the middle of the century they started to abandon this belief, acknowledging that empiricism was the new way of constructing knowledge. Contrary to scholasticism, empiricism relied on observation as a source of knowledge and induction as a mode of knowing (Taavitsainen and Pahta 1998: 162; Gotti 2001: 221; Taavitsainen 2002: 204–207, 2009: 38).

This evolution of science entailed a redistribution of medical writing in the period that, helped by book production, spread widely among the society, especially after 1550 (Taavitsainen et al. 2011: 10–11). This not only provoked the expansion of already existent text types, but also the incorporation of new ones to the panorama of early Modern medical writing. For this reason, Taavitsainen et al. (2011: 22–25) elaborated a new, and more adequate, taxonomy for these writings: *general treatises or textbooks*, providing a systematic account of the whole field of medicine; *treatises on specific topics* (texts on specific diseases, specific methods of diagnosis or treatment, specific therapeutic substances, midwifery and children's diseases and the plague); *recipe collections and materia medica*, containing both remedy books and formalized pharmacopoeias; *regimens and health guides*, comprising texts on preventive medicine; *surgical and anatomical treatises*; and *Philosophical Transactions*, which consist exclusively of medical texts published as letters or articles in the *Philosophical Transactions* of the Royal Society. Table 1.2 below offers the taxonomy of scientific writing in late Middle and early Modern English.

²⁹ According to Taavitsainen, “the founding of the Royal Society is one of the landmarks in the period, as it proposed a new way of thinking and communicating, and a new style of reporting on experiments was created” (Taavitsainen 2002: 204).

Late Middle English	Early Modern English
<i>Specialized texts</i>	<i>General Treatises or textbooks</i> <i>Treatises on specific topics</i>
<i>Surgical texts</i>	<i>Surgical and anatomical treatises</i>
<i>Remedies and materia medica</i>	<i>Recipe collections and materia medica</i> <i>Regimens and health guides</i>
-	<i>Philosophical Transactions</i>

Table 1.2. Taxonomy of scientific writing in late Middle English and early Modern English

The diffusion of this new science was possible due to the circulation of manuscripts and, from Caxton's introduction of the printing press in 1476, of early printed books.³⁰ Even though the ability to write and the availability of materials increased after 1500, cheap printed books saved the trouble and expense of writing. However, there were certain text types that were more prone to be handwritten, such as the tailored compilation of remedies from various sources, the students' notebooks, and records of the different treatments that a particular physician applied to his patients (Taavitsainen et al. 2011: 10–11).

In order to know who had access to this material, Jones distinguishes two different literacies in the early Modern scenario: functional literacy, when people read seeking help to maintain or restore their health; and cultural literacy, which "was restricted to those with leisure and educational attainment sufficient to make

³⁰ Although the advent of printing "enabled the production of multiple copies of a text more quickly and more cheaply, [...] the progress of medical printing in England was slow in comparison with Continental Europe [and] only after 1550 did the numbers of medical books printed in England begin to increase sharply" (Taavitsainen et al. 2011: 10–11).

their exercise feasible” (2011: 32: see Ford 1993 for a detailed analysis of these literacies). In medical writing, therefore, while theoretical treatises would belong to cultural literacy, as it was university-trained physicians who studied the ‘science of physik’ looking for the cure of diseases and the restoring of health; popular remedy books are placed in the context of functional literacy, being consulted whenever people needed to access knowledge in order to improve, or just maintain, their health conditions.

These different literacies occurred in different scenarios in the early Modern society. Thus, the exchange of medical knowledge could occur in the market square or the street, where medical edicts and important information about diseases were proclaimed. In addition, the reading of medical literature could also take place in a more private setting, the closet, in which books and the equipment to make up household remedies were kept.³¹ And finally, the library or the study, where books, mainly printed and in Latin, were found (Jones 2011: 34–37).

From a linguistic point of view, this transition in the way knowledge was transmitted is due to the fact that genres “constitute dynamic systems that undergo change and variation over the course of time as sociocultural needs change, and genres change accordingly: old genres are adapted to new functions, new genres are created, and genres that have lost their function cease to exist” (Taavitsainen 2001: 141, 2009: 38). Code-switching is also witnessed in the period as a continuation of the late mediaeval tradition. In early modern English medical writing, it was employed for the expression of certain medical terminology, to include expressions of intertextuality and as a tool for textual organization (Pahta 2011: 123–131).

³¹ The closet was a real location in the early Modern household, and it appears in the title and preliminary matter of books in the sixteenth and seventeenth century as a place for reading and making remedies (Jones 2011: 35).

All this considered, it could be said that linguistic features evolve from one thought-style to another, and differences in the speech act verbs of reporting, the definition of scientific terms, argumentation and meta-text are found between late mediaeval and early Modern English scientific writing, that is, between scholasticism and empiricism (Taavitsainen 2002: 207–218). However, it must be noted that these changes or evolutions are not as conspicuous as they were thought to be, as “the great majority of early modern medical writings continue in the old vein, carrying over conventions from previous writing” (Taavitsainen 2011: 3).

1.4. The surgical treatise in H135 (ff. 34r–73v)

Early Modern surgery was mainly concerned with cutting out disease by excision or amputation or with mechanical repairs such as setting bones or putting dislocations back in place. The labour of surgeons could be divided into four kinds, according to their purpose: the treatment of wounds, ulcers, fractures, dislocations and tumours; the separation of parts of the body for either cosmetic or functional reasons; the removal of what was superfluous in the body, such as a dead child in the womb, ruptures or hernias, etc.; and the restoration of defects of the body using parts of the body or artificial artefacts (Wear 2000: 211–213).³²

This period in the history of English medicine witnessed the transition from the traditional surgery based on the practical knowledge and acquired by apprenticeship, to a learned surgery that was well acquainted with the Classical authors and likely to include dietary recommendations or prescribed medicines. It is the believers in this ideal that can best be characterised as ‘humanists’, scholars convinced of the practical utility of linking the present with a classical

³² According to Porter, surgeons’ labour was “restricted largely to the body’s surface, [where] they set fractures, treated burns, contusions, knife wounds and the increasingly common gunshot wounds, tumours and swellings, ulcers and various skin diseases; syphilis was usually handled as a surgical condition” (1997: 186).

past,³³ and prepared to be guided by the precepts and the example of their predecessors. Accordingly, this learned surgery not only published ancient Hippocratic and Galenic surgical texts, but also vernacular surgical texts blending past and present surgical knowledge, thus making it available to the many surgeons who could not read Latin (Nutton 1985: 80; Wear 2000: 218).³⁴

The first step towards the change of thought in the sixteenth century was the conception of physic and surgery as disciplines complementing each other for the sake of a more accurate practice of medicine. Therefore, surgeons would have to get familiar with the “physicians’ territory of inward diseases and remedies [applying] complete treatments rather than simple external remedies”, and offering advice on internal medicines and on diet (Wear 2000: 219). In this manner, surgeons would receive the theoretical basis of the operations they usually performed, while the physicians could use therapies they had long disregarded (Nutton 1985: 80).

H135 (ff. 34r–73v) is a case in point in the production of these innovative learned surgeries, as it contains a version of Guy de Chauliac’s surgery with interpolations of Henry de Mondeville and others (Voigts 1995: 261), in which the author provides the patient with medicines to heal the injury, apart from the surgical operation. This treatise is characterised by the pragmatic nature of its

³³ The new developments in warfare in the sixteenth century led to a consequent re-examination of surgical techniques, the invention of new instruments and artificial limbs, and the discover of new techniques for managing wounds (Nutton 1985: 76).

³⁴ Learned physicians welcomed the push to create surgeons educated in classical learning, seeing this as part of the reformation of medicine and the war on empirics, but they still wished to retain the separation between physic and surgery that placed them above the rest of practitioners. The lack of theoretical background in the practice of surgery made physicians look down on surgeons, as can be noticed in the words by the Salisbury Physician, John Securis (fl. 1566): ‘There be many surgions in this oure time, that practise surgerie, more by blynde experience, then by any science who [...] knowe almost the vertue and opeeration that they do use. For howe shoulde they knowe it, when they are altogether unlearned?’ (Wear 2000: 218).

explanations, lacking the usual references to classical authors during late mediaeval England, as can be observed in (3).

- (3) And if they do not then giue him euery daye this drinke fastyng the quantitie of foure sponfull at ones, Take the rootes of whit klelebour and blak elebore and the Rootes of Astrologia rotunda the Rootes of Radishe and the leaves of Lawrell of eche like muche and put all thes in good reade wyne, After streine yt and put therto honye to make yt delycate / And in the space of xv daies *with* vsinge of this drinke the child shalbe hole, And the Scrophule is soft in touching And the Glandule is harde ./ (f. 51v).

In this part of the treatise, the author is explaining how to heal the scrofula [scrophule], defined by the *Oxford English Dictionary* (henceforth *OED*) as “a constitutional disease characterized mainly by chronic enlargement and degeneration of the lymphatic glands, also called king’s evil and struma.” The author lists the necessary ingredients for the preparation of a drink to heal the child in two weeks. This fragment exemplifies this new surgery, which is not only concerned with the explanation of the procedures to carry out several operations, but also with prescribing complementary and/or alternative options for healing. In (4), the author deals with the treatment of the mormal or inflammation in the skin, for which he prescribes a medicinal drink to be prepared using a long list of ingredients. For the purpose, all the ingredients and the cooking procedure are provided.

- (4) And if the mormall be causid of the second manner, First thow shalt make Syrup to clens the bodie in this manner. {f. 70r} Take the rootes of fenell and of *parsilie* of radishe of gladen of astrologia longa and rotunda of eche *half* a handfull madens haire harts tounge scabions fumiter germander medratill of eche j *quarter* of a handfull egremoyne colaver forte / pigle vngle daisie Strauburie wises pimperlenn betonie tyme heyhane of eche iij *quarters* of a handfull, of Wannes iij handfull, of the rootes of madder iij handfull First weshe the rootes clene and

the herbes and stampe them small and put them to a gallon of good wyne or read viniger in an erthen pott and let them rest so together the space of ij daies and ij nightes Then boile it vpon a soft fier to the third parte of the lycour be wastid then strein it throughe a clothe *and* take hede how much lycour ther is and put therto the third parte of clarified honie and put it on the fier againe and make it boile with a soft fier half j quarter of an houre then let it kele and put it into a glas, of *which* thow shalt giue the patient to drinke euerie daie iiij sponefull with vj sponefull of water fasting in the morning This syrup shall clens the sore and suffer no corruption abyde therin and yt shall cast the matter furthe of the bodie that causithe the mormall Also it is good for appostemes bredd in the bodie (ff. 69v–70r).

Apart from medicinal drinks, the surgical treatise in H135 also contains instructions for the preparation of different salves, electuaries and ointments with different applications, as in (5),

- (5) Off restoringe of good fleshe in a wounde The causes whre the fleshe is not sonne restorid and genderid againe in a wound are thre, one is, For if ther be a greate quantitie of fleshe stricken awaie it must nede be longer in restoring, another is if ther happen to be greate holones in the wound *which* maie happen bicause the patient is disobidient and will not suffer him to dight it as it ought to be the third maie happen by misconyng or ignorance of the surgeon *which* thinge thow shalt helpe in this manner Take shepe talow j *pound* colophome *half a pound* waxe iiij vnces meate oile *half a pynt* powder of olibanum mastick and myrr of eche ij vnces First melt thy shepe talow waxe and oyle together and set it from the fier and strew therin powder of Olibanum mastick and frankencence and let it boile together and kepe yt to thie vse this oyntment is *precious* for it engendrithe {f. 59r} Fleshe annon and fillithe vp the holes in a wounde if ther be no

dead flesh therin before And if ther be then thow must fret it awaie
before thowe laie to of this Salve (ff. 59v–59r)

These excerpts show the new nature of surgical texts, in which surgery and physic are joined in order to offer a better service to the patient. Furthermore, the treatise also provides the reader with instructions on how to prepare ‘unguentum fustum’ or ‘unguentum viride’, among others, which also had different properties and were prescribed for diverse purposes.

4. The medical recipes in H135 (ff. 74r–121v)

Recipes are the written representation of domestic medicine, which was free of commercial, professional or hierarchic relationships, and that no doubt constituted the most important form of health care in the early Modern period, as “the decision to call a physician, surgeon, apothecary or other forms of paid medical practice usually followed the failure of domestic treatment to cure or alleviate conditions” (Leong and Pennell 2007: 134–136). The importance of this genre is supported by the vast amount of early Modern handwritten recipe collections in the libraries, which are the result of people’s efforts in preserving the oral exchange of medicinal advice (Wear 2000: 51; Leong and Pennell 2007: 138).

The fact that the most serious illnesses were usually treated at home and the small-scale and specialised nature of semi-institutional care for the sick confirm the individualistic, one-to-one nature of early Modern English medicine, centred on transactions between single patients and their families and single practitioners. In such a setting medical knowledge became accessible to lay people as well as practitioners. (Wear 2000: 25). There were different ways in which the recipes were collected and then disseminated throughout the early Modern society, although two sequential phases could be drawn. First, the recipes prescribed by physicians or other medical practitioners were used by patients, who paid for them. Second, these patients would pass them on to members of their

family, neighbours or other acquaintances. In addition, books of recipes could be given “as part of a dowry or as a wedding gift” (Leong 2005: 131–133). In this transmission of knowledge from learned to lay people, recipes came from a commercial relationship to a non-commercial, altruist health care. Even though practitioners lost profit with the circulation of books of recipes, they did not always condemn this practice, as a good remedy with their name attached to it could bring them relative fame in the town or city and could entail future business (Leong and Pennell 2007: 144).

Sixteenth-century remedies, therefore, were characterised not only by the retrieval of classical drugs, but also by the discovery of new vegetable products from America and the Indies and the use of chemical substances. These ingredients allowed apothecaries to prepare ‘simples’, a remedy in which one single remedy was employed,

For vexinge or hickop drinke the iuce of rew with ale aand suger (f. 95v).

or ‘Galenicals’, which was the name for those compounds containing animal and mineral ingredients, together with herbs (Porter 1997: 190–191).³⁵

Vnguentum veni mecum Taike borage femitorie selven, scabions the leves, elicampana red dock the clote bothe leves and roote of euerie one ana bruse them well together and let them lye xi daies Then put therto theyr weight of swyne greace boyle yt and streyn yt and kepe it in boxes This oyntment is good for the iche *and* the scabb, for the morfew, for scaldinge etc. (f.93r).

Theriac and mithridatium, in turn, were the most popular until the early Modern period, when compound remedies started to proliferate. This proliferation every now and then entailed distortion in the nature and quantity of the ingredients,

³⁵ According to Leong, the majority of the ingredients used were herbs commonly found in household gardens or well-known spices. Furthermore, an analysis of over 9,000 recipes in 28 collections (15 manuscripts and 13 printed) revealed that rose, wine, sugar, honey, egg and a number of herbs and spices such as rosemary, nutmeg, aniseed, liquorice and cinnamon were among the most common ingredients (2005: 98–105).

and “one of the aims of the authorisation of European cities of official pharmacopoeias was to ensure that certain compound remedies were made according to standard sets of ingredients” (Wear 2000: 92).³⁶

Women were the main producers of this kind of material, as the close relationship between cooking food and preparing medicines confined medicine to the context of the kitchen and women. In this context, it was usual to find remedies attached to a doctor’s name in the Tudor household. Furthermore, from a social point of view, women were expected to master the manufacture of remedies, a knowledge that came to them by the reading of books or by word of mouth (Wear 2000: 47–52).³⁷ These pieces of medical writing were produced for lay and medical readership. Learned physicians harshly criticised the remedies produced by women and other laymen, arguing that they lacked both the experience to properly “pick, store and process herbs” and “the popular knowledge of herbs, whether local or from the Indies and America” (Wear 2000: 48).³⁸ In this vein, there were moments in which physicians had to deal with patients that

³⁶ Theriac, considered to be the panacea of the ancients, is an example of these distortions, containing approximately a hundred ingredients and being impossible to create by 1540s, as many of its ingredients were unknown and more than twenty substitutes were needed (Porter 1997: 192). Terminology also often created confusion. Greek, Latin and the various early modern European languages had different words for the same herb and it was not always certain that one and the same herb was being referred to in the lists of synonyms that herbalists compiled for an herb (Wear 2000: 58).

³⁷ Leong points out that “contemporary advice literature, such as Gervase Markham’s *The English Housewife*, presented medical knowledge as essential to any early modern housewife, and the papers of gentlewomen like Margaret Hoby, Grace Mildmay, and Alice Thornton (to name but a few) attest that these views were not only prescribed but also followed” (2008: 147; see also 2014: 556).

³⁸ In this vein, Wear argues that “the picking of plants was viewed as the first stage in the making, or the manufacture, of remedies. As such it was placed within the area of expertise of the apothecary and of its ostensible supervisor, the learned physician. The efficacy and goodness of the herbs that were used in remedies were a constant source of concern; [as] their power depended especially on when and how they were gathered” (2000: 65).

could read scientific writing and had their own ideas of the treatment of their disease, which they defended by reference to books they had read (Jones 2011: 38).

CHAPTER 2

MS HUNTER 135:

CONTENTS, OWNERSHIP AND PHYSICAL DESCRIPTION

The present chapter is divided into three different parts: contents, ownership and physical description. In the first, the different treatises in the volume are enumerated and the object of study of the present dissertation stated. The second describes the former owners of the manuscript. Finally, the physical features of the witness and the punctuation system are analysed.

2.1. Contents

H135 is housed in Glasgow University Library. Referenced MS Hunter 135 (T.6.17), it is a sixteenth-century volume containing five treatises, the second and approximately half the third being the object of study in the present dissertation, that is, ff. 34r–121v.³⁹

- *Medica Qvaedam* (ff. hv–32v), Latin and English by unknown author.⁴⁰
- *De Chirvrgia Libri IV* (ff. 34r–73v), English by unknown author.
- *Medica Qvaedam* (74r–159v), Latin and English by unknown author.
- *Practica Chirvrgiae* (ff. 159v–208v), Latin by John Arderne.
- *Medica Qvaedam* (ff. 208v–234v), Latin and some English by unknown author.

³⁹ These two texts constitute the English component of H135: a surgical treatise (19,348 words) and a collection of medical recipes (19,482 words).

⁴⁰ This part of the manuscript is mainly composed of an alchemical treatise (ff. 3v–23v) in Latin and English as well as a geographical treatise (ff. 24r–32v) in English.

Apart from the third table of contents, the existence of the other two in H135 shows how different readers would create different custom tables of contents according to their interests. It reveals the existence of other former owners of the manuscript, as they represent these people's preferences towards the different topics in the manuscript.

[illegible]

Fig. 2.2. Table of contents at the end

⁴² See the Appendix for the quiring of the volume.

As observed in Figures 2.1 and 2.2, both tables of contents have the same introductory words and are arranged alphabetically, taking into account just the first letter of the word. Some parts of the texts are listed more than once in the same table of contents, albeit with different names (i.e. 'hering' and 'deafness').

Regarding the origin of the texts under study, the English medical recipes are, as far as I have been able to investigate, an original text inasmuch as they are recipes that were plausibly collected from different sources, from those coming directly from the Old English tradition to orally-transmitted ones. *De Chirvrgia Libri*, in turn, has been identified by Voigts, who states that there are four other versions of it in New York, Academy of Medicine, MS 13; Bodleian MS Ashmole 1468; and BL MS Sloane 2463 and 3486. This surgery is largely based on the *Chirurgia Magna* of Guy de Chauliac, with interpolations of Henry de Mondeville and others (Voigts 1995: 261).

2.2. Ownership

The volume is part of the collection of manuscripts from the personal library of William Hunter, a British physician, anatomist, man-midwife and book collector (1718, Long Calderwood, Scotland - 1783, London, England). He started attending the University of Glasgow in 1731 and left it in 1736 without graduating. He then attended lectures on anatomy by Alexander Monro and Frank Nicholls, on midwifery by William Smellie and on natural philosophy by John Desaguliers. In 1743 he left for Paris where he attended lectures on anatomy and surgery by Antoin Ferrein and H. F. Le Dram, respectively. While in France (1743–44 and 1748), he observed that individual medical students were provided with cadavers for dissection, and he introduced that practice in Britain.⁴³ Hunter's discoveries, which have come to us through his students' notes, made him a well-known physician in the eighteenth-century. He eventually started working for

⁴³ In October 1746 Hunter took advantage of the split between the barbers and the surgeons and advertised his first anatomy course (Lawrence 2007: 5).

the royal family in 1761 and was appointed Professor of Anatomy in 1768 by the Royal Academy (*Oxford Dictionary of National Biography*, henceforth *DNB*; *Encyclopaedia Britannica*, henceforth *EB*).

William Hunter was also a collector of coins, insects and other curiosities, and he owned a library that contained over 10,000 books, including 534 incunabula and 656 manuscripts. When he died, under the terms of his will, the whole collection remained in London several years for the use of his nephew, the physician Dr. Matthew Baillie (1761-1823). It was not until 1807 that the collection was moved to the University of Glasgow (*DNB*; *EB*). Unfortunately, no information regarding the historical moment in which H135 was acquired by William Hunter has been found and, as a consequence, the information about the former owners of the manuscript has come to us in the shape of different inscriptions throughout the witness.

Apart from William Hunter, two other names appear in the volume, suggesting that these two men were formerly in possession of the volume. These men are Henry Swinburne and Leonardus Cooke, appearing at the end and at the beginning of the volume, respectively (see Figures 2.18 and 2.19, respectively). A palaeographic analysis helps determine the chronology of the different owners of the manuscript, as the name of Henry Swinburne is rendered in an early-seventeenth-century script, a fact that indicates that he owned the volume before Leonardus Cooke, whose name appears in a late-seventeenth-century hand (Young and Aitken 1908: 123; see also Figures 2.18 and 2.19 below).

The biographical information of Leonardus Cooke is almost non-existent, and the only data that I have been able to find is that he was plausibly a curate in London in-between the years 1628 and 1633 under the bishop William Laud (*Clergy of the Church of England Database*).

Finally, the first known owner of the volume, Henry Swinburne (c.1551–1624), was an ecclesiastical lawyer born in York, where he lived most of his life.

He is the author of two books that became deeply influential in topics such as the complex testamentary and matrimonial law of the sixteenth and seventeenth centuries: *A Briefe Treatise of Testaments and Last Wills* (1591) and *A Treatise of Spousals, or Matrimonial Contracts* (posthumously, 1686). When he died, at the age of 73, the beneficiaries of his will were his wife and his only son, Toby (1613–1656), who inherited Swinburne's books and later became a civil lawyer (*DNB*).

2.3. Physical description

The present section addresses the physical description of H135. These data are the result of the examination of the digitised images provided by the Glasgow University Library, together with a meticulous *in situ* examination of the original witness in the library. Young and Aitken's *A Catalogue of the Manuscripts in the Library of the Hunterian Museum in the University of Glasgow* (1908) has also been helpful.

2.3.1. Codicology

Codicology is the study of the volume as a physical object, that is, binding, quiring, etc. It was defined by Grujis as,

a multidimensional approach to the codex as object-in-itself, and as cultural phenomenon. In the more restricted sense of the word, codicology comprises the investigation of all physical aspects of codices, together with the indispensable interpretation of the results which such a synthesis has to provide for subsequent historical research (1972: 102).⁴⁴

Thus, the present section analyses and faithfully describes external features of the volume such as material, dimension, ink, decoration, quiring, ruling and foliation.

⁴⁴ According to Grujis, “codicology derives from the Latin noun *codex*; also spelt *caudex*, which originally meant a tree-stump, and later on a block of wood or a board. Etymologically, it appears to come from the Latin verb *cutere* ‘to cut or hew’” (1972: 87).

2.3.1.1. Material and dimension

H135 is a bound volume written in vellum, approximately 31 lines to a page in a single textblock (Young and Aitken 1908: 122). Parchment was the chief surface upon which scribes performed their task. This material was generally made from the skin of sheep or goats (sheep-skin prevailed in England), although the skin of lambs, kids or calves was employed for important manuscripts, hence the name vellum, from the Latin *vellis*, meaning calf (Petti 1977: 4; De Hamel 1992: 8).⁴⁵

H135 comprises 245 vellum leaves that are 19.6 / 20.3 x 14.8 / 15.3 cm, the text occupying an area of 15.2 x 10.1 cm. The volume's dimensions are 21 x 16.1 x 6.3 cm (length, width, depth). The vellum is in overall good condition, the versos being whiter than the rectos, showing a yellowish colour. According to Hector, in almost all parchment there is a conspicuous difference in colour and texture between the flesh side and the hair side, the former being "whiter and somewhat smoother while the latter may be dark enough to be called 'brown'" (1958: 16). Some folios have become deteriorated due to the passing of time:

- ff. 6, 44, 169 and 176 present a hole in the bottom margin.
- f. 86 is wrinkled due to dampness.
- f. 16 is spotted with stain.
- f. 32v is extremely stained, a fact that may explain the reasons why f. 33 is missing.

⁴⁵ Parchment reached a higher quality during the late Middle Ages, when it began to be manufactured by craftsmen who managed to produce large quantities of parchment with similar thickness, stiffness and colour. Four kinds of parchment can be distinguished: calfskin (*carta vitulina*, vellum) was the largest in size and had an even surface, its hair side and flesh side having approximately the same white colour; sheepskin (*carta ovina*, *froncina*), was sometimes greasy or wrinkly, the hair side mostly yellowish, the flesh side white; the hair side of goatskin (*carta caprina*) is marked by the characteristic 'morocco' grain, often still showing the dark spots of the animal's hair; and uterine vellum (*carta abortiva*, *virginea*), made from the skin of unborn calves or lambs (Derolez 2005: 31).



- ff. 40, 41, 46, 105 and 121 have sustained damage and loss at the outer margin (Figs. 2.3 and 2.4 below).
- ff. b and 245 are much more deteriorated than the rest, pointing to the fact that these two folios were originally the cover and back, respectively.



Fig. 2.3. Damage at the outer margin in f. 41⁴⁶

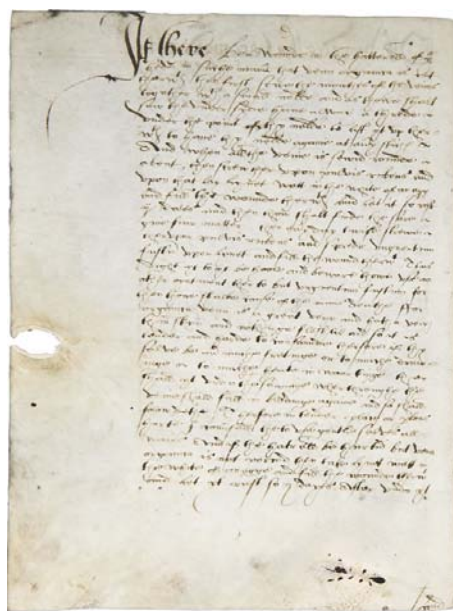


Fig. 2.4. A hole at the outer margin in f. 46

2.3.1.2. Ink and decoration

The inks employed in the production of manuscripts were thicker and more glutinous than modern commercial ink, and there were different recipes for their manufacture. It was basically black and could be made by mixing carbon with gum and water or from gall and iron sulphate (Petti 1977: 7; De Hamel 1992: 27). These recipes are found in numerous medieval and renaissance manuscripts, and H135 is not an exception to this as it contains a recipe ‘To make blak ynk’ in f.

⁴⁶ Notice the different shades in the vellum of these two folios, as f. 41r is slightly yellowish while f. 46v presents a whiter colour.

174r, even though the nature of the remedies in that section of the volume is purely medical.

To make blak ynk

Take a pound and a half of rayn watter with 3 owncs of the weightiest galls you can get bruse them into peeces but not into powder and powre them into þe said water. and let it stand. 2. days in the sune then put to it 2 ouncs of romain vitriol⁴⁷ being within like to the colour of þe elyment and beat it into small powder and mix all well together with a stik of a fygg tree or walnut tre /or a peece of licores\ and leave it again 2 days moore in the Sune / Finallie put to it one ownc of gume Aralyke that is clere brittill (for the best wilbe easelye Bet into powder) bet into powder and an ownc of the pills of pomgarnetts and then boile yt a lytill with a slow fier that doone streane it and kepe it in a vessel of lead or glasse and it wilbe vere perfite and blak and upon the lees that shall remayne in þe bottom you may powr other water and boil it a litill and strean yt and you may still put moore water vpon þe same lees vntill you see that the water wilbe colored no moore with them / Then mingle all the said waters wherunto you shall put other galls gums and vitriol as at the begynning and setting it in the Sune you shall haue a better ink then at the beginning (f. 174r).

H135 is written with brownish ink,⁴⁸ whose shade varies throughout the manuscript, as shown below. Petti states that, “although initially [iron gall ink] became quite dark through oxidation, it eventually faded, sometimes to a quite light brown ‘shade’” (Petti 1977: 8). Therefore, the varied brownish tonality of the ink in H135 leads us to think that it was iron gall ink or with added carbon.

⁴⁷ Coperas and vitriol are synonymous terms for what the modern chemist calls ferrous sulphate (Hector 1958: 20).

⁴⁸ Lampblack (made from dense carbon, gum and water) was “used extensively on papyrus but was less suitable for parchment because the ink sat on top of the parchment and [...] could eventually disintegrate. A better ink for parchment was iron-gall ink, [...] which worked its way into the parchment rather than simply sitting on top of it” (Clemens and Graham 2007: 19).

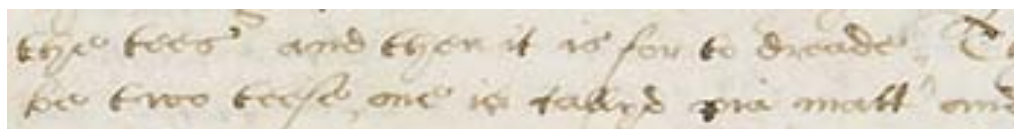


Fig. 2.5. f. 34r

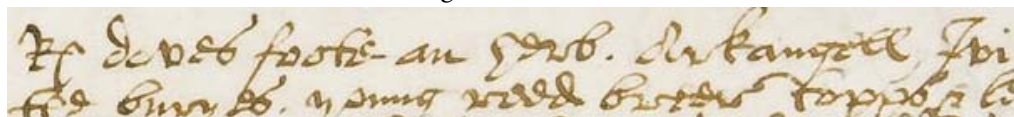


Fig. 2.6. f. 74r

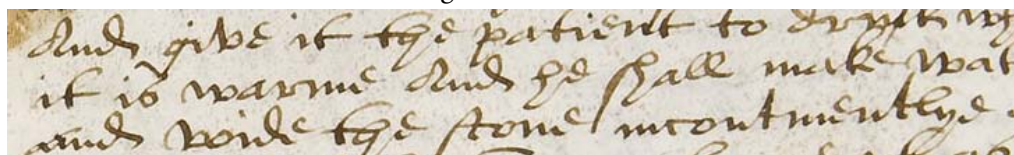


Fig. 2.7. f. 99r

The decoration of manuscripts came after the text had been copied, where the scribe would leave room for rubrication, decoration and illustration (Clemens and Graham 2007: 20). No completed medieval manuscript would lack any of these parts, as manuscripts were considered pieces of art. During the latter part of the Middle English and the beginning of the early Modern period, “innovation took place in the pictures that accompanied the text, while initials and other elements of decoration where more and more standardized due to production needs” (Derolez 2003: 40).

When it comes to decoration, the richest part of H135 is the treatise on surgery in ff. 34r–73v. The beginning of the treatise and the beginning of relevant sections are decorated with a more elaborate script, bolder and darker than the body text. In addition, the end of each chapter is marked with an ornamented, bottom-centred Latin inscription. The lack of illumination or floral ornaments indicates that this volume may have been created by one single person, without the intervention of illuminators.



Fig. 2.8. Beginning of the surgical treatise (f. 34r), 'Liber Primus'

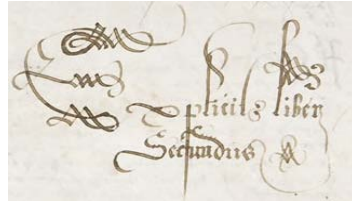


Fig. 2.9. End of the second chapter (f. 55r), 'Explicit Liber | Secundus'



Fig. 2.10. End of the first chapter (f. 45v), 'Explicit Liber | Primus'



Fig. 2.11. End of the third chapter (f. 67r), 'Explicit Liber | Tertius'



Fig. 2.12. End of the surgical treatise (f. 73v)
'Finis Huius Libri'

The only illustration in H135 is the head of a man where a dot is indicating the location of the pain. It appears in the outer margin of f. 90v, containing a recipe against the migraine, and the ink used for its rendering allows us to determine that it was done by the same scribe who wrote the remedy.

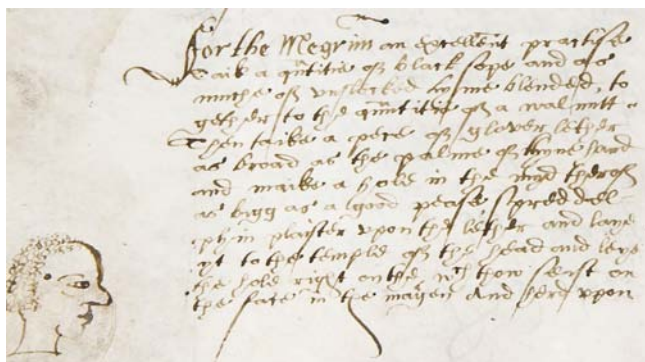


Fig. 2.13. Illustration of a head (f. 90v)

2.3.1.3. Binding and quiring

The binding was the last stage in the creation of a book, after the text had been copied, the folios illuminated and the illustration included. According to De Hamel, it was the task of the stationer or bookseller, who would have to “collect up all the quires, reassemble them into order, and hold them together in some serviceable binding” (1992: 65).

The first step was the sewing of the quires into the sewing supports⁴⁹ in the spine of the book (Clemens and Graham 2007: 49). 29 quires were needed for the creation of H135, together with two flyleaves at the beginning of the volume and five at the end. The volume presents an irregular *bifolia* quiring, as some quires contain four *bifolia* (quires 1–19, 21, 23) and others contain five *bifolia* (quires 20, 22, 24–29).⁵⁰ This was a regular practice during the Middle Ages,

⁴⁹ The sewing supports were usually made of tawed leather (leather produced by steeping animal skins in alum solution), and each support would have a central slit along most of its length, but not at the ends. The number of sewing supports would vary depending on the size of the book (Clemens and Graham 2007: 50).

⁵⁰ Petti states that “the number of leaves in a quire could vary considerably [...]. However, the standard quire was a quaternion (*quaternio*), comprising four sheets folded in two (*bifolia*). [...] The sheets were then so ordered that the outer one formed folios one and eight, the next two and seven, and so on” (1977: 6).

although “the relative thinness of the material often induced producers of books to use quires of more than four *bifolia*, indeed of six or up to twelve and even more *bifolia*” (Derolez 2003: 32; Romero-Barranco 2015: 4). The whole quiring framework can be found in Section 2.4.

After sewing all the quires onto the sewing supports, the book was ready to incorporate the cover and the back, which were made of wood covered with pigskin, calfskin or goatskin (Clemens and Graham 2007: 52–53). The binding in H135 is not the original and it dates back to the eighteenth century.⁵¹ The cover is a millboard covered with spattered calfskin with the title ‘MEDICAL | & CHIRURG. MS’. and the back is gilt-panelled (Young and Aitken 1908: 122).

2.3.1.4. Ruling

The ruling of the folios was usually performed by means of a pencil or plummet, and helped the scribe maintain the lines of the text straight. According to Petti, “before the writing commenced [...] a frame was provided for the writing area of each page and the lines ruled” (1977: 6).⁵² In the late fifteenth century ruling became less fashionable and only the frame remained, an element that would be omitted from the sixteenth century (Petti 1977: 6).

H135 only presents the frame for the text in each folio, made in plummet or pencil (Young and Aitken 1908: 122). Due to the fact that the plummet or pencil was used, the frame has been completely erased in most of the folios, and it is hardly recognisable in some others.

⁵¹ According to Derolez, “most medieval manuscripts have been rebound since the sixteenth century, often more than once” (2003: 44).

⁵² In the date of composition of the present manuscript, ruling was invariably traced on the hair side of the parchment, so that the ridges appear on the flesh side (Derolez 2003: 35).

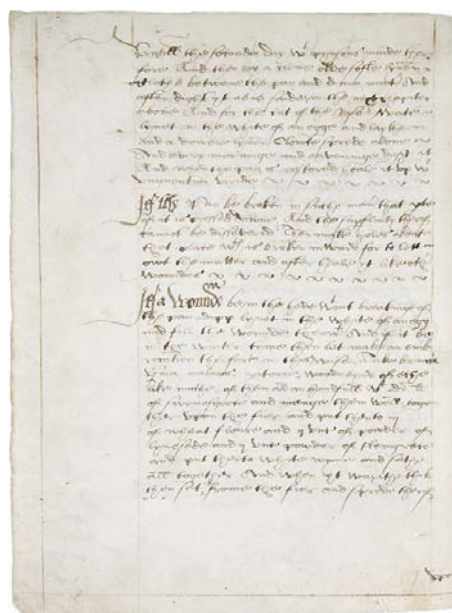


Fig. 2.14. Ruling in H135 (f. 35v)

2.3.1.5. Foliation

Foliation was conceived as an aid to the ordering of the folios, and also for referencing purposes.⁵³ There were different ways of maintaining the quires in a manuscript in order: quire-marks or quire numerals consisted of a Roman numeral written in the lower margin of the first or last page of a quire; signatures indicated not only the order of the quires, but also of the *bifolia* of each quire; and catchwords (sometimes called stitchwords) were written at the end of each folio so that the scribe would know the first word in the next one and he would not miss any page nor copy a page twice (Derolez 2003: 35; Clemens and Graham 2007: 49).

⁵³ From the fourteenth century, it was common to number the leaves of the first half of the quire, to ensure that the pages of the quire were in the correct order. These numbers were formerly Roman numerals in red, blue or green ink, and by the fifteenth century they started to be written in black ink and changed to Arabic numerals (Petti 1977: 6-7). Scribes sometimes copied their works unthinkingly, and this led them to copy quire numerals and even catchwords that did not belong to the actual volume in which they were working (Clemens and Graham 2007: 49).

H135 features foliation in the top right corner of each folio recto, where the scribe includes the reference to each folio in Arabic numerals. Furthermore, catchwords, rendered in the same hand as the body text, are also witnessed in every folio with the only exception of the final folios of each chapter in the surgical treatise (ff. 34r–73v) and those folios in which the catchword has been lost most likely due to the re-binding process to which the volume was subjected.

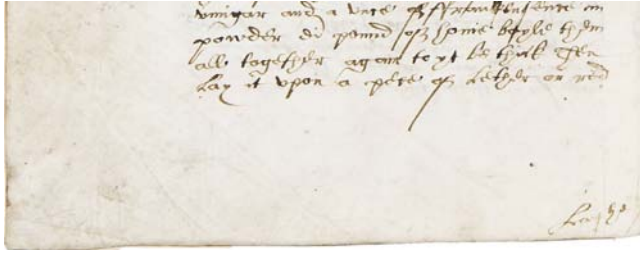


Fig. 2.15. Catchword in f. 93v, bottom margin. ‘laishe’

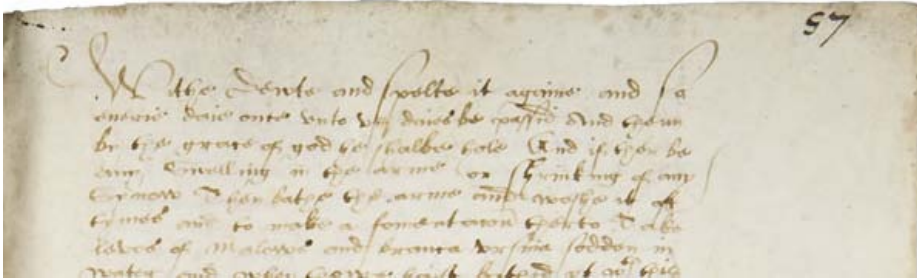


Fig. 2.16. Foliation in f. 57r, top margin

2.3.2. Palaeography

Palaeography, as the *OED* defines it, is “the science of art of deciphering and determining the date of ancient writings or systems of writing.” Denholm-Young points out that “the business of a palaeographer is not only to read, classify, date, and determine the provenance of a manuscript, but to recognize textual errors that spring from the scribe’s misreading of what he is copying” (1954: 1). Consequently, studies in Palaeography become particularly handy when it comes to the dating of historical manuscripts, as variation between two different scripts

can be detected in any fifty-year period in the history of English handwriting (Dawson and Kennedy-Skipton 1968: 8).

When it comes to handwriting in Tudor England, two different scripts can be witnessed: the Tudor Secretary⁵⁴ and the Italic (also known as Humanistic or Italian). It must be noted that, while the Tudor Secretary script was the evolution of the former Secretary script that had been in use from the beginning of the fifteenth century, the Italic was “a markedly new development in Tudor England” (Preston and Yeandle 1999: viii; see also Jenkinson 1927: 54–57; Denholm-Young 1954: 71–76; Hector 1958: 60; Fairbank and Wolpe 1960: 28–34; Dawson and Kennedy-Skipton 1968: 7–10; Petti 1977: 14–18; Marshall 2004: 23).

The Secretary script was the usual hand from 1525 until about 1650, being used “for business both governmental and private, for many kinds of records, correspondence, for literary composition” (Dawson and Kennedy-Skipton 1968: 8).⁵⁵ According to Tannenbaum, “this hand [...] followed the letter forms of the large bastard hand and [...] it was the finest of the free hands that developed from the bastard Gothic” (1930: 13). For the sake of description and classification, Petti distinguished three different phases in the Secretary script: early Tudor Secretary,

⁵⁴ The word ‘Secretary’ did not seem to mean writer in medieval times. The Tudors, “by elevating the position of Secretary of State, brought the word into prominence but its increased use is probably more attributable to the increased use of writing everywhere which led to many people imitating the Royal custom of keeping a confidential servant for the special purpose of their personal correspondence” (Jenkinson 1927: 57; Tannenbaum 1930: 13). As for the letterforms in the period, Brown argues that “the Gothic cursive scripts of the 15th to 17th centuries in England, and elsewhere in Europe, are among the hardest to read of all the scripts normally considered by paleographers” (Brown 1968: v).

⁵⁵ According to Fairbank and Wolpe, “the credit for being the first to introduce humanistic cursive into England is given traditionally to Petrus Carmelianus, [...] a poet who became Latin secretary to Henry VII, lute-player to Henry VIII, and prebendary of York” (1960: 29–30).

from the ascension of Henry VII to the throne until the later years of the reign of Henry VIII; the mid-Tudor Secretary, from the mid-1530s to about the beginning of Elizabeth's reign; and Elizabethan Secretary, from about 1560 onwards (1977: 16–17).

The other characteristic script of the period is the Italic script,⁵⁶ which became more and more popular in England after 1550. It developed in Italy towards the fifteenth century and it is considered to derive from the Caroline Minuscule (Jenkinson 1927: 63). The success of this script was due to its simplicity and ease of writing, on the one hand, and its grace and beauty, on the other. It took over the Secretary's supremacy in England before 1650 and “ultimately brought about its demise” (Dawson and Kennedy-Skipton 1968: 9).

These two hands coexisted and were sometimes mixed in various ways.⁵⁷ Dawson and Kennedy-Skipton argue that “in the sixteenth century, and later, writers of the secretary hand often used the italic hand to set off certain elements, such as book titles, or to indicate emphasis” (1968: 8). For an instance of this coexistence, see 2.3.2.1.1.

2.3.2.1. Scripts

The text in H135 is written using two different scripts. For the sake of description and comparison, these have been termed Hand A and Hand B in the present section. Apart from these two hands, the volume contains corrections and insertions by a later hand (henceforth Hand C), which is also described. In addition, the handwriting of three owners of the volume are shown in Figures 2.17, 2.18 and 2.19, corresponding to William Hunter, Henry Swinburne and Leonardus Cooke, respectively.

⁵⁶ Although the term applied to this kind of script was Italic, it must not be confused to the “sloping letters that we now associate with the word ‘italics’ (Marshall 2004: 23).

⁵⁷ Petti states that “the mingling of scripts is a common palaeographical phenomenon, being often the way in which new scripts are created” (1977: 20).

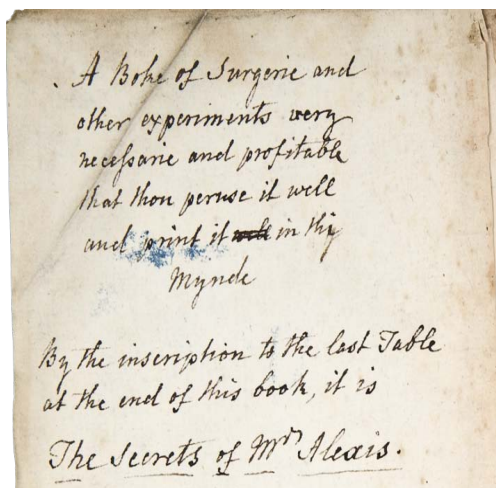


Fig. 2.17. William Hunter's own handwriting

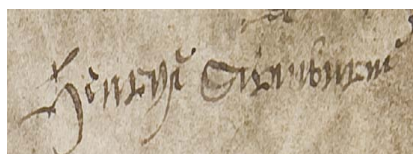


Fig. 2.18. Henry Swinburne's autograph

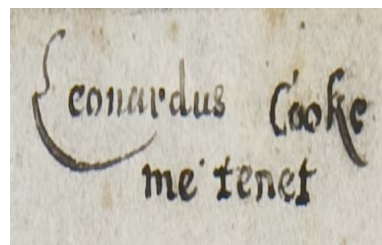


Fig. 2.19. Leonardus Cooke's autograph

Leonardus Cooke's autograph is rendered in a late seventeenth-century hand (Fairbank and Wolpe: pl. 55). Henry Swinburne is written in an early seventeenth-century hand. Finally, Hunter's eighteenth-century handwriting is a well-spaced cursive script that resembles our contemporary handwriting. Letter <s> is worth noting, represented by both sigma-like <s> and long <s>.

2.3.2.1.1 Hand A

Hand A is the main hand in H135, occupying ff. 34r–73v, 74v–98r and 101v–113v. Even though this hand is faithfully kept throughout these folios, some variation is observed in the thickness of the ductus and level of cursiveness. This variation could be said to derive from the speed with which the scribe was carrying out his task, as speed “not only modif[ies] scripts to save the labour of writing

but will also save material by a reduction of size letters, or by lateral compression, or close spacing” (Fairbank 1968: 31).⁵⁸



Fig. 2.20. Hand A (f. 45r)

The letterforms observed in Hand A, except for those in the title of sections (Figure 2.20 above, line 1), suggest that it is a hybrid script mainly composed of an early Tudor Secretary hand together with some characteristic features of the mid-Tudor Secretary and the Italic, which were in use in England towards the middle of the sixteenth century (see Preston and Yeandle 1999: pl. 11 and 13).

Among the letterforms belonging to the early Tudor Secretary, the following stand out: the pointed single-lobed <a> ('callid', 'and', line 3); the uncial <d> ('musterd', line 7); the looped <f> inclined rightwards ('of', line 5); the tailed <g> with a wide u-shaped top and a long headstroke ('visage', line 2; 'weight', line 10);⁵⁹ the letter <k> with a long supralinear stroke slightly curved rightwards,

⁵⁸ According to Fairbank, "speed may in time change a script, but the instinct to write legibly and with discipline and care results in the development of a new script" (1968: 31).

⁵⁹ In the Secretary script, which was a development of Caroline minuscule, "the head of the g was converted into a small semioval, and the infralinear loop into a simple or a sinous tail; the flat bar,

from which two small strokes stem out upward and downward, the upper one forming a lobe ('take', line 4); a vertical stroke with a small rightward lobe at the top for the <l> ('Sawcefleame', line 3); the letters <m> and <n> written with a single stroke, where the minims are slightly curved rightwards ('manner', line 4); the short-stemmed <p> in which the stroke of the lobe crosses the shaft ('penye', line 8);⁶⁰ the round <u> written with a single stroke, resembling the shape of <n> ('spurge', line 5); the <v> written with two strokes, both of them being made from top to bottom ('visage', line 2);⁶¹ and the canonical secretary form of <w> ('powder', line 9).

The mid-Tudor-Secretary component in Hand A is represented by the single-lobed with the shaft curved rightwards ('borace', line 9);⁶² the letter <e> where the eye is usually split from the body due to the thinness of the connecting stroke ('honye', line 4); the <c> with a vertical shaft from which a line stems out leftwards ('curid', line 3); and the twin-stemmed <r> resembling *v* ('therto', line 5).

Finally, there are some letters that vary their shape due to arbitrariness or their position within the word. Thus, the letter <h> may arbitrarily feature an early Tudor Secretary shape ('this', line 4) or a shape clearly influenced by the Italic script ('those', line 11); the long <s>, in turn, is witnessed at initial and medial position ('spurge', line 5; 'musterd', line 7), while the Italic *sigma*-like <s>

closing the semioval, was made last and linked the *g* to the succeeding letter (Tannenbaum 1930: 45).

⁶⁰ Some words beginning in <p> systematically feature a long-stemmed <p> which is made in one single stroke. The contrast between these two renderings for <p> can be checked against the word 'pepper' in line 8 (Figure 2.20).

⁶¹ Hand A uses both <u> and <v> with a vocalic value, the former in medial and final position and the latter in final position.

⁶² This letter may also be represented in its double-lobed shape ('cotilbon', line 10), although it seldom occurs.

is preferred in final position ('this', line 6); the letter <t>, represented with the early Tudor vertical stem crossed at the top at initial position ('the', line 5), the mid-Tudor version, rendered with one single stroke, being preferred in medial and final position ('weight', line 7).

Apart from the body of the text, important sections are introduced by highlighted words or short sentences rendered with the Italic script, as in Figure 2.20. These letters are highlighted by means of a thicker ductus and a bigger size, which approximately doubles the size of letters in the body text. In the Italic script of H135, the following letterforms deserve particular attention: the uncial <d> ('and', line 1); the <h> written with a supralinear vertical loop followed by two semiovals, the first right-handed, the second left-handed and serving as the forelink ('There', line 1); the Italic *sigma*-like <s> ('knurres', line 1); and the letters <e> and <w> similar to their present-day realizations.

2.3.2.1.2 Hand B

Hand B, present in ff. 74r, 98v–101r and 113v–121v,⁶³ is bigger and less cursive than hand A, as well as thicker and more angular in the execution of the ductus. It is a hybrid script composed of an early Tudor Secretary combined with some characteristic letterforms of the mid-Tudor Secretary script (see Tannenbaum 1930: pl. IX; Dawson and Kennedy-Skipton 1968: pl. 41; Preston and Yeandle 1999: pl. 14). It must be noted that, even though both Hand A and B are hybrid scripts composed of early Tudor Secretary combined with mid-Tudor Secretary, Hand B is a purer early Tudor Secretary script, as it just contains two letterforms belonging to the mid-Tudor Secretary.

⁶³ Apart from being the hand in these folios, this hand is also witnessed in the marginalia of ff. 40r, 43v, 44r, 52v, 54v, 56r–v, 57r, 58v, 69r, 72r, 74r, 81v, 82v, 97r, 99v, 100v, 109v, 110r, 114r, 114v, 115r–v, 116r–v, 117r–v, 118r–v, 119r–v, 120r–v, 121r. These are mainly single words informing of the content of the adjacent text and short explanations about the topic involved.

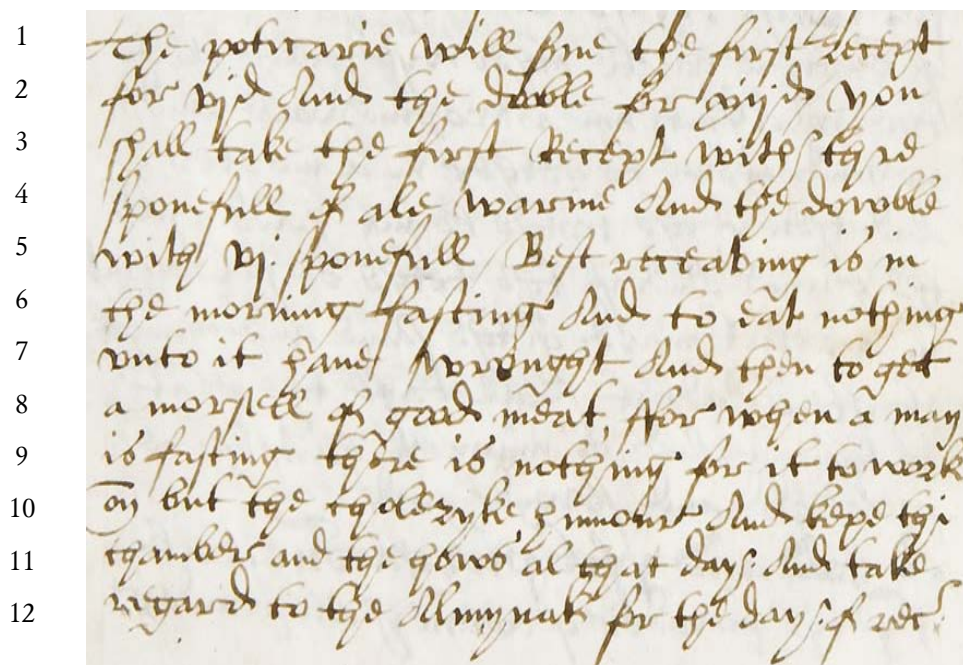


Fig. 2.21. Hand B (f. 99v)

The following letterforms, with an early Tudor Secretary shape, represent the divergences between Hands A and B: the double-lobed ('chamber', line 11); a short vertical stroke and a thin horizontal stroke at the top of it for the <c> ('receaving', line 5); the reversed circular <e> ('the', line 3); and a z-form for the <r> ('choleryke', line 10).⁶⁴ The letters representing the mid Tudor component of Hand B are the <d>, which is losing its definition, and the <p>, which has acquired a 2 to the left of the downward stroke ('poticarie', line 1).

2.3.2.1.3 Hand C

Hand C (Figures 2.22 and 2.23) is the less frequent hand in H135 (ff. 45v, 76r, 85v, 102v) and can only be witnessed in the marginalia. However, although it rarely appears in the two sections that concern the present dissertation, its presence grows both in John Arderne's practice on surgery and the collection of

⁶⁴ This shape is only observed in medial position, while the twin-stemmed <r> resembling *v* is kept in initial and final position.

medical recipes in Latin. It is the same hand that collated John Arderne's practice on surgery in T.5.14 (Glasgow University Library, MS Hunter 112), and adds marginalia, interlinear additions and corrections from U.4.9 (Glasgow University Library, MS Hunter 251), also containing a version of John Arderne's practice on surgery, referred to as 'Dr. Mead's MS' (Young and Aitken 1908: 122).⁶⁵ It is a fairly legible seventeenth-century Round hand that came into use by the middle of the seventeenth century (Petti 1977: 20; for a plate of this hand, see Dawson and Kennedy-Skipton 1968: pl. 41).

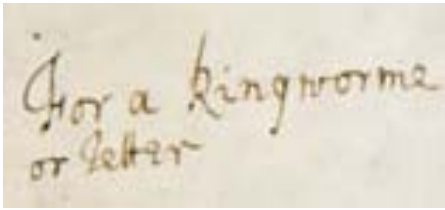


Fig. 2.22. Hand C (f. 45v)

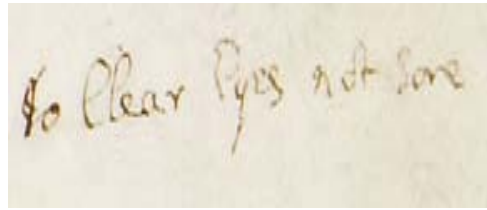


Fig. 2.23. Hand C (f. 76r)

2.3.2.2. Numerals

H135 presents Roman numerals in the body of the text, while Arabic numerals are employed in the numeration of the folios (see 2.3.1.5). According to Hector, the Roman system was employed in England "for about five centuries after the Norman Conquest [...] and they continued to be written in English archives long after Arabic numerals had become commonplace" (1958: 41–42).

⁶⁵ Richard Mead (1673–1754) was a physician and collector of books and art. His collection of books and manuscripts was second only to that of Hans Sloane. His books numbered some 10,000 volumes, including 146 incunabula and many fine bindings and his library was especially rich in the classics and in works of medicine and natural philosophy. Mead aimed to find the best editions of canonical works. One example is his fine collection of medical works, dominated by anatomy (*Oxford Dictionary of National Biography*). The fact that these inscriptions refer to Dr Mead's manuscript allows us to conclude that H135, MS Hunter 112 and MS Hunter 251 somewhat shared the same owner, who made these inscriptions.

The Roman numerals in H135 are used to indicate the specific quantities of herbs or substances in the preparation of ointments and salves (in the surgical treatise) together with the preparation of drinks and medicines (in the remedies).

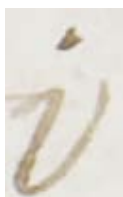


Fig. 2.24. One (f. 40r)



Fig. 2.25. Two (f. 46v)



Fig. 2.26. Three (f. 106v)

Figures 2.24, 2.25 and 2.26 are the representation of numbers 1, 2 and 3, respectively. As shown, these numbers are composed of *i*'s where, when alone or in final position, the *i-longa* is preferred (Tannenbaum 1930: 153; see also Denholm-Young 1954: 79). Thus, *j*, *ij*, and *iij* stand for 1, 2 and 3, respectively.



Fig. 2.27. Four (f. 34r)

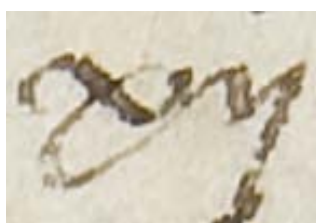


Fig. 2.28. Fourteen (f. 27r)

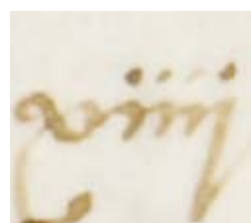


Fig. 2.29. Fourteen (f. 57r)

Number 4 can be witnessed in two different forms in H135. On the one hand, it can follow the sequence that has been explained above, by adding one more *i* to number 3 (Figures 2.27 and 2.29), or a single *i* accompanied by the Roman numeral *v* (Figure 2.28). While the form in Figure 2.27 is always witnessed when number 4 stands alone, some variation is found when it is part of a bigger number.



Fig. 2.30. Five (f. 60v)

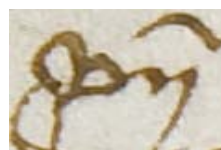


Fig. 2.31. Seven (f. 118v)

Number five is rendered with the Roman numeral *v*, as in Figure 2.30 above. In addition, the sequences in Figures 2.24, 2.25 and 2.26 are added to create higher numerals (Figure 2.31). In this same vein, number ten is represented with the Roman numeral *x* (Figure 2.32), where the same sequences are added to form the other numerals (Figures 2.28, and 2.33, 2.34, 2.35, 2.36 and 2.37).



Fig. 2.32. Ten (f. 76r)

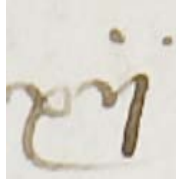


Fig. 2.33. Twelve (f. 40r)

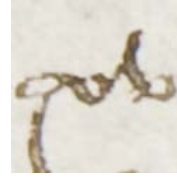


Fig. 2.34. Fifteen (51v)

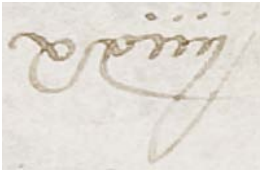


Fig. 2.35. Twenty-four (f. 82v)



Fig. 2.36. Thirty (f. 107r)



Fig. 2.37. Sixty (f. 76r)

Apart from Roman numerals, Arabic numerals are also found, albeit to a much lesser extent. These Arabic numerals serve not only for foliation purposes, but also for the same usages as Roman numerals.

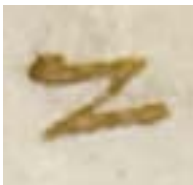


Fig. 2.38. Two (f. 116r)



Fig. 2.39. Three (f. 116r)



Fig. 2.40. Four (f. 100v)



Fig. 2.41. Seven (f. 120v)



Fig. 2.42. Eight (f. 118v)



Fig. 2.43. Nine (f. 120v)

2.3.2.3. Marginalia

The marginalia could be used for different purposes in handwritten documents. In H135, it is used for reference purposes. Thus, there are numerous annotations indicating the topic under discussion, explanations of the particular indications, and references to other manuscripts that were copied from the same exemplar but containing a different amount of information. These inscriptions are made by the three different hands that have been identified in section 2.3.2.1.

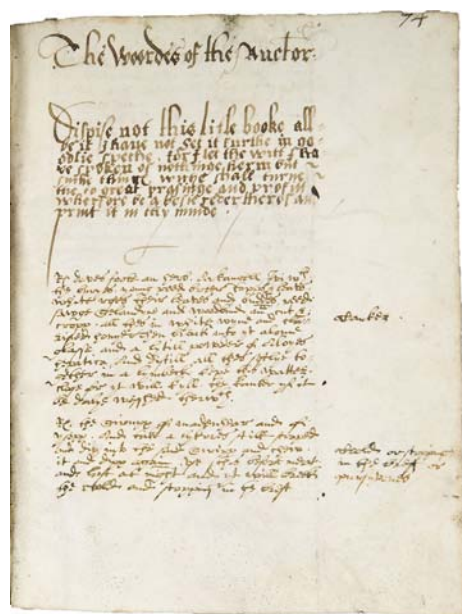


Fig. 2.44. Marginalia in f. 74

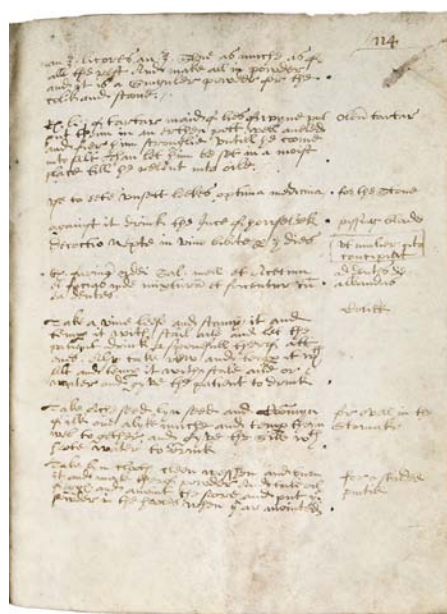


Fig. 2.45. Marginalia in f. 114r

2.3.2.4. Abbreviations

In the mediaeval period, it was commonplace among scribes to abbreviate words, a practice imported from Latin and eventually transferred to the vernacular (Tannenbaum 1930: 119). From a chronological point of view, English documents of the twelfth century display the abbreviation system in the most elaborate form, while in the latter Middle Ages some of them were gradually

discarded (Hector 1958: 29).⁶⁶ Derolez notes that genre is found to play an important role in the use of abbreviations,

as scholastic manuscripts and those of the thirteenth and fourteenth centuries in general contain without doubt the largest number of abbreviations (mostly specific to the subject concerned: theology, philosophy, law, natural science, medicine...), but the degree of abbreviation is far less in liturgical and literary manuscripts (2003: 187).

The use of abbreviations in the sixteenth century follows the mediaeval tradition, as “the need for them had become less acute as paper became more available” (Dawson and Kennedy-Skipton 1968: 19; see also Whalley 1969: ix). As a piece of sixteenth-century English *Fachprosa*, H135 contains a great deal of abbreviations, allowing the scribe to save both time and labour. The methods of abbreviation during the English Renaissance were the following: contraction, elision, absorption, curtailment, brevigraphs, superior letters and a combination of these (Tannenbaum 1930: 119). H135, however, only features contractions, curtailment, brevigraphs and superior letters.

2.3.2.4.1. Contraction

Contraction is one of the commonest methods of abbreviation, consisting in the omission of one or more letters within a word, where the number of omitted letters could vary greatly from one scribe to another (Tannenbaum 1930: 119). These contractions were rendered by means of the tilde, the most frequent symbol in this kind of abbreviations (Petti 1977: 22). In H135, this method was employed to omit one single letter in the middle of a word, as in Figures 2.46, 2.47 and 2.48.

⁶⁶ The forms of abbreviation also varied geographically, especially during the early Middle Ages, when abbreviations could provide vital clues to the origin of the manuscript (Clemens and Graham 2007: 89).

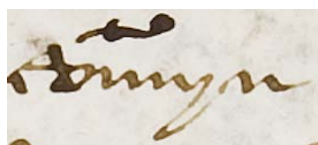


Fig. 2.46. 'commyn' (f. 118r)

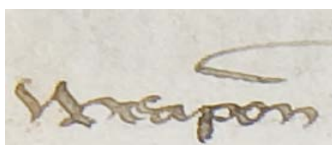


Fig. 2.47. 'weapone' (f. 34v)

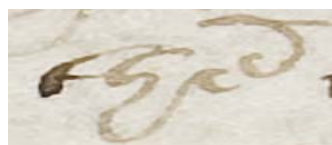


Fig. 2.48. 'then' (f. 36r)

2.3.2.4.2. Curtailment

Curtailment, also termed suspension, was the shortening of the end of the word (Tannenbaum 1930: 124). This method of abbreviation was occasionally marked with a horizontal bar above the terminal part of the word (Figures 2.49, 2.50 and 2.51).⁶⁷

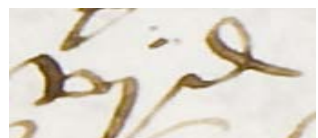
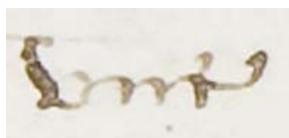


Fig. 2.49. '6 days' (f. 99r)



F. 2.50. 'vnce' (f. 42v)



F. 2.51. 'half' (f. 42v)

2.3.2.4.3. Brevigraphs

Brevigraphs are regular letters that have been slightly modified for a particular purpose, either a single letter or an entire syllable. Brevigraphs, taken from Latinate texts, were frequently used for words or syllables so that time and material could be saved (Tannenbaum 1930: 124). When it comes to brevigraphs in H135, letter <p> is the brevigraph *par excellence*, as it is the source letter for four different syllables: 'pro' (Figure 2.52), 'per' (Figure 2.54), 'pre' (Figure 2.53) and 'pri' (Figure 2.55). In addition, a symbol resembling a 9 (Figure 2.56) is used to abbreviate the group <us> (Tannenbaum 1930: 127).

⁶⁷ Due to the spelling inconsistency in late Middle English and early Modern English, it is hard to identify the omitted letter, especially at the end of words (Petti 1977: 23).



Fig. 2.52. 'pro'

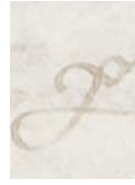


Fig. 2.53. 'pre'



Fig. 2.54. 'per'

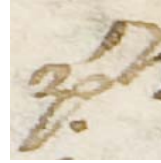


Fig. 2.55. 'pri'



Fig. 2.56. 'polipus'

2.3.2.4.4. Superior letters

Superior letters were used to omit one or more letters, and they were placed above the line to indicate the omission. This abbreviation technique could be applied to all words and the number of omitted letters could vary depending on the scribal habit. The following superior letters can be highlighted in H135.

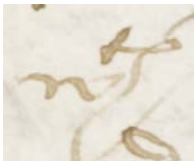


Fig. 2.57. 'with'

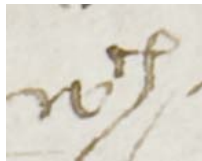


Fig. 2.58. 'which'

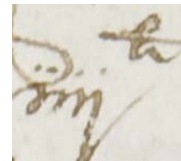


Fig. 2.59. 'Four pounds'

Apart from the use of superior letters for abbreviation, there are common words in the text in which the final letter(s) are above the line as a custom of the scribe, not strictly standing for an abbreviation in itself.



Fig. 2.60. 'pe'

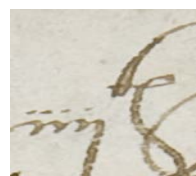


Fig. 2.61. 'fourth'

2.3.2.5. Manuscript corrections and scribal errors

Scribes had the common practice of revising their work when they had finished copying a text in order to detect any likely error they could have committed.⁶⁸ In this line, Hector distinguishes two different kinds of scribal errors: those that scribes have noticed and properly corrected and those that they have left for us to detect and analyse (1958: 49). Among those scribal errors that remained unnoticed during the stages of revision, H135 displays the following:

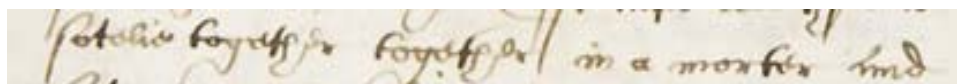


Fig. 2.62. Addition (f. 47v)

'sotolie together together in a morter and'

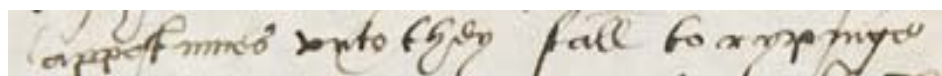


Fig. 2.63. Syllable addition within a word (f. 49v)

'apopostumes vnto they fall to rypinge'

Besides these unnoticed errors, the scribe of H135 carried out manuscript corrections by deletion, alteration and insertion (Petti 1977: 29). These are explained below with the corresponding fragment in which they appear.

⁶⁸ Clemens and Graham argue that manuscripts would not only be corrected by the scribe who had copied it, but also by more senior members of the scriptorium, who had a greater range of textual familiarity and insight (2007: 35). Petti also notes that "by the 16th century the role of official manuscript corrector had virtually disappeared to be replaced by proof-reading which was carried out, albeit sometimes sporadically, in the printing press" (1977: 28).

2.3.2.5.1. Deletions

H135 presents three deletion techniques: cancellation,⁶⁹ expunction and erasure. Cancellation is the most frequent type of correction in the witness and consists in striking through the passage with ink with one or more straight lines (Figures 2.64 and 2.65). Figures 2.66 and 2.67, in turn, are instances in which the scribe uses cancellation in order to amend another scribal error consisting in the “mechanical repetition of a syllable, word or phrase through a lapse of memory or a trick of sight, an error of *dittography*” (Petti 1977: 30).⁷⁰



Fig. 2.64. Cancellation (f. 80r)
'not'

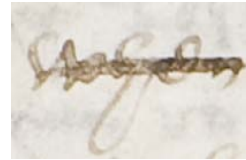


Fig. 2.65. Cancellation (f. 37r)
'when'



Fig. 2.66. Cancellation (f. 58r)

'how to heale yt. ~~When thou seist a wound~~
when thou seist a wound cleare and faire'

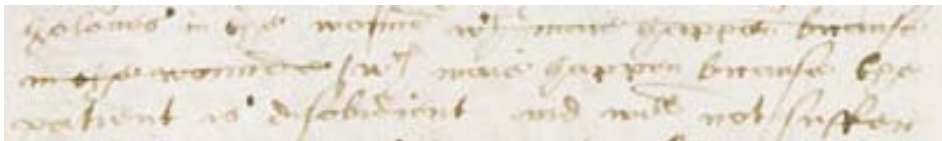


Fig. 2.67. Cancellation (f. 58v)

⁶⁹ This is the commonest method of deletion in Renaissance manuscripts, and usually takes the form of one or two strokes through the centre of the words or letters roughly parallel to the baseline (Petti 1977: 29).

⁷⁰ *Dittography* occurs when after “having correctly copied in full a passage in which the same word or phrase occurred twice, the scribe’s eye went back from the second to the first occurrence in his exemplar, causing him to copy the passage a second time” (Clemens and Graham 2007: 35).

~~'holones in the wound which maie happen because~~
~~in the wound~~ / which maie happen because the
 patient is disobidient and will not suffer'

Expunction only appears once in the manuscript and is rendered by placing a dot under each letter to be left out (Petti 1977: 29; Clemens and Graham 2007: 35), as in Figure 2.68.

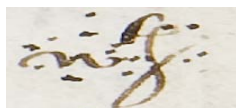


Fig. 2.68. Expunction (f. 45r)

'with'

Erasure consists of the removal, with a sharp knife, of the surface to be deleted and the posterior inclusion of the correct letter in the erased place (Hector 1958: 49; Clemens and Graham 2007: 35). Figures 2.69 and 2.70 are an example of erasure, in which the erased surface can be detected in view of the darkness left by the scraped ink.



Fig. 2.69. Erasure (f. 43r)

'blakishe'



Fig. 2.70. Erasure (f. 43r)

'of'

2.3.2.5.2. Alterations

Alterations are found in H135, consisting in the “modification of letters or words by *superimposing* or *superscribing* the correct letter on the deleted one” (Petti 1977: 29). In Figure 2.71, the scribe had formerly written a <g> instead of a <c>.



Fig 2.71. Alteration (f. 59r)

'Be Cut'

2.3.2.5.3. Insertions

Insertions could be performed directly on the line or above it (*interlineation*), depending on the length of the insertion, as they could be words, phrases and clauses. The caret (^) was used to mark the point in which the fragment was to be inserted (Petti 1977: 29). Insertions are by the same scribe who copied the text (Figures 2.72, 2.73, 2.74 and 2.75) or by a later hand (Figure 2.76 and 2.77).

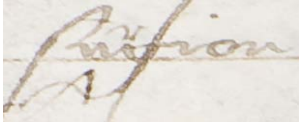


Fig. 2.72. Insertion (f.38r)
'sur/r\gion'



Fig. 2.73. Insertion (f. 62r)
'k/n\eade'

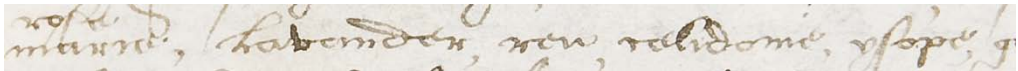


Fig. 2.74. Insertion (f. 72r)
'rose\ marie, lavender, rew, celidonie, ysope, goldes

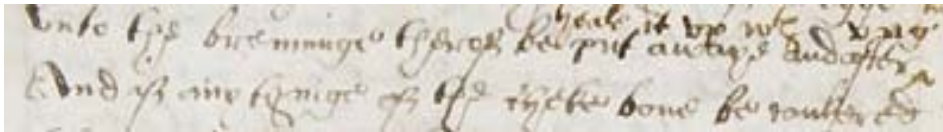


Fig. 2.75. Insertion (f.44v)
'vnto the brenninge therof be put awaye and after / heale it vp with vnguentum
viride\ And if any thinge of the cheke bone be cankered'

Figures 2.72 and 2.73 show the insertion of one missing letter in a word, where the scribe inserts it above the line, the caret marking its appropriate place. Figure 2.74 presents the insertion of a whole word above the line without the caret (most likely due to the obvious pairing of the words 'rose' and 'marie'). Finally, figure 2.75 accounts for the insertion of a whole clause above the line, the caret marking the exact point of the insertion.

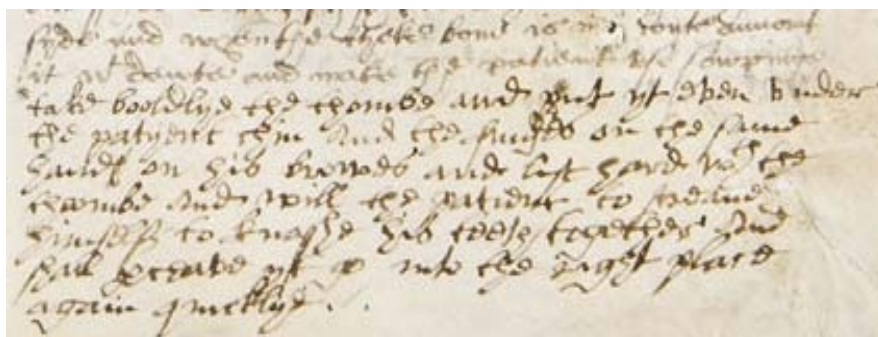


Fig. 2.76. Insertion (f. 44r)

(for a transcription, see edition in Chapter 3 below)

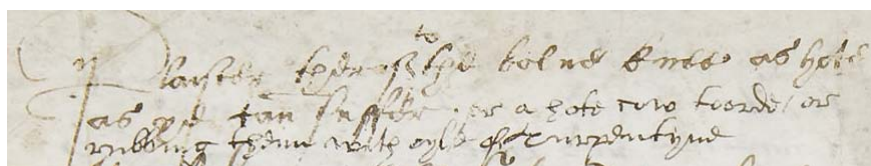


Fig. 2.77. Insertion (f. 93v)

(for a transcription, see edition in Chapter 3 below)

Figures 2.76 and 2.77 are instances of insertions by a later hand, as a change in the handwriting is easily noticed. Figure 2.76 shows a whole paragraph inserted at the bottom margin of f. 44r, incorporating extra information to the topic under discussion. The source of the added information is unknown. Figure 28, in turn, shows a smaller insertion, barely a clause, which is providing two alternative remedies to the one that has been proposed. The source of this insertion is MS Hunter 251 (U.4.9), which appears referred as ‘Dr. Mead’s MS’ in later insertions in the volume (Young and Aitken 1908: 201–2). These two hands carry out a great number of insertions and corrections throughout the text, the marginalia and the indexes, as has already been commented on in Section 2.3.2.1.

2.3.2.6. The punctuation system in H135

Punctuation may be defined as “the practice, art, method, or system of inserting points or ‘stops’ to aid the sense, in writing or printing” (*OED* s.v. *punctuation*, n. 3.a). However, there has been some controversy as to the functions of these

‘stops’. The punctuation of mediaeval manuscripts has been paid little or no attention in the literature until recent times, as punctuation has been traditionally considered to be arbitrary and unsystematic (Salmon 1988: 285; Rodríguez-Álvarez 1999: 27–30; Alonso-Almeida 2002a: 207–210; Calle-Martín 2004: 407–422).

It would be neither possible, nor particularly rewarding, to attempt a detailed analysis of the punctuation of individual writers in this period, since so much depended on education, on the writer’s purpose and general predilections (Salmon 1999: 31).

In the sixteenth century, a number of punctuation marks are introduced (i.e. the semicolon) and, more importantly, “punctuation ceases to be regarded primarily as a guide to the spoken language and becomes an aid to clarity in the printed work” (Salmon 1999: 40).⁷¹ The topic has recently attracted the attention of scholars, who have proposed several categorisations of punctuation, i.e. rhythmical versus logical, rhetorical versus grammatical, or elocutionary versus structural (Lucas 1971: 2–3).

Approaches to individual texts demonstrate an evolution from the rhetorical to the grammatical in the history of English.⁷² In Old English, for instance, Calle-Martín and Miranda-García found a rhetorical use of punctuation

⁷¹ Even though the conventions of punctuation started to standardise due to the circulation of printed texts, Salmon (1999: 40) argues that “the period is one of experiment and uncertainty in the use of some of these punctuation marks, which, to some extent, depends on the preference of the individual compositor”, hence the need of individual approaches to the issue. In this vein, Kennedy-Skipton states that the punctuation system “fully developed by the end of the 16th century, and in the course of the early Modern English period scribes employed the punctuation symbols that we use today, albeit with noticeable differences” (Dawson and Kennedy-Skipton 1968: 18; see also Petti 1977: 25).

⁷² According to Lucas, “the historical development of the use of punctuation in English seems to be a gradual process of re-drawing the boundary-line in favour of structural (and expository) at the expense of elocutionary territory” (1971: 4).

in the *Apollonius of Tyre* (2005a; see also Mitchell 1980 for the modernisation of OE punctuation). In Middle English, Arakelian's analysis of the punctuation system in a biographical treatise demonstrates that the grammatical predominates (1975). In this same vein, Rodríguez-Álvarez (1999) and Calle-Martín and Miranda-García (2005b) accounted for the structural functions of punctuation in sixteenth-century vernacular deeds and a Middle English arithmetical treatise, respectively. Finally, studies in early Modern English punctuation by Alonso-Almeida and Ortega-Barrera (2014) on sixteenth-century medical recipes and by Calle-Martín and Miranda-García (2007) on sixteenth-century legal texts corroborate the diachronic transition of English punctuation, from rhetorical to structural purposes.

It must be noted that all the studies on early Modern English material have approached the topic of punctuation from a qualitative point of view. The quantitative aspect, however, has been disregarded even though it could certainly contribute to a better understanding of a scribe's preference in the same text. Therefore, the present analysis of punctuation is based both on qualitative and quantitative grounds. The fact that the object of study in the present dissertation is divided into a surgical treatise and a collection of recipes allows for the comparison of the scribal preferences in two different text types.

38,830 words and punctuation marks were transcribed, normalised, POS-tagged and, by means of *AntConc* 3.4.4 (Anthony 2014), all the concordances of the punctuation marks in H135 were subsequently retrieved. These concordances were then exported to an Excel spreadsheet and classified according to the punctuation mark (period, comma, etc.). Finally, the instances of each punctuation symbol were analysed in the light of their function in the text.

2.3.2.6.1. The inventory of punctuation symbols and their functions in H135

The following punctuation symbols were found in H135: the period (.), the comma (,), the perioslash (./), the virgule (/), the colon (:), the semicolon (;) and the parenthesis ((-)).

2.3.2.6.1.1. The period

According to Parkes, the punctus became the most common mark of punctuation after the twelfth century, “used to indicate all kinds of pauses, to introduce quotations, and to separate” (1992: 42, 1978). Towards the fifteenth century, however, the functions of the period narrowed down to barely the flagging of sentence boundaries, as the full stop nowadays does (Petti 1977: 25). In H135, there are 113 instances of the period in the surgical treatise and 340 in the medical recipes. At sentential level, the period is found to have the following functions:

a) After titles:

- (1) To cleare Eies which ar not sore. Take rew, vervine, rede roses celidonie still them and this water is goodd./ For the fever quotidian, tertian or quartane Take monfeare camamile bursa pastoris rede nettell (f. 76r).

a) To mark off the end of a section:

- (2) And whethe apposteme is done awaie and the woun chaungid again to his first kynde, then heale it lyke as other woundes. Off restoringe of good fleshe in a wounde The causes whre the fleshe is not sonne restorid and genderid againe in a wound are thre (f. 58v).
- (3) And when thow wilt gilt any mettell heet it a litill in the fier and ley thervpone thie water so ioned with a fether and let it drye. For the sawce flewin Take dragance when he is moost brimmet roote and all and drie it in the soone (f. 113v).

b) To mark off the beginning of a new sense unit:

- (4) then ley thervpon lynet wet in the white of an egge and oyle of Roses together and when the ache and priking is debatid heale it vp with vnguentum viride and of the canker in fleshlie places I shall speake hereafter. Scropules do springe in the neck and in the throate and in the liskes and glandules also and for to knowe glandules and Scrophule (ff. 50v–51r).
- (5) for the megryne or forehede wark. Take the white of dove dounge musterd sede and pepper. bray them all together and in braying temper yt with good stronge viniger vtill it be plaister like (f. 81v).

c) To introduce sequential markers:

- (6) Throughe Slyding or falling it with a stroke the foote is somewhiles brought furth of ioint and in this manner thow ought to bring it again. First thow shalt make the patient to sit vpon his ars and cause a man to hould the same legg wherof the foote is out of ioint (f. 70v).
- (7) Take a pound of new yalew wax or as muche as you will and let it melt on the fier in a cleane pan And then poore yt into another pan or dishe wherin must be malmesey muscadell or other whyte wyne that is vere good. after take it owt of the wine, and melt it again (f. 118v).

e) To introduce coordinate sentences:

- (8) Therfore we may fret awaie the cankers with corrosyves and burninges and cutting. And note that sometime the lypes of the Canker on thes places spredithe abrode and somewhiles are strait together (f. 71r).
- (9) and throw a litill salt theron then take furthe thy honie while it is warme and vpon that trencher maike therof four rolls as long but not so big as thy litle finger. And let the patient or for him thrust one of the rolles over the head in his fundament (f. 78r).

f) To introduce adverbial clauses:

- (10) presse yt downe fast thowhe which pressinge ther shall comme oute oyle which kepe to thie vse. For it is wondeurfull precieuse for all manner of morfewes (f. 45v).
- (11) And within iiijor daies þe hole of the wound shall seme larger and the matter which did hing furthe shall be sowple and easie to be put vp. When it is vp trins yt suerlie with a cod. And giue this drynke folowing (f. 77r).

g) To introduce relative clauses:

- (12) I thinke to speake of stein apostemes which grow vnder the armehooles and in the share as it were pestilenc sores or bothes and those are vncurable. which sucertith and akithe and burnithh so mucche that the patient may not slepe wherthroughe the patient hath a sharpe fever (f. 49v).
- (13) then for want of breathe drawing he startithe furthe of his slepe like one affrayed and pantith for want of winde lyke a man whose mynde were almost gone. which in Continewance of few wekes is nedie deathe for want of slepe if the patient gan get no remedye And I haue knowen one dye (f. 88r).

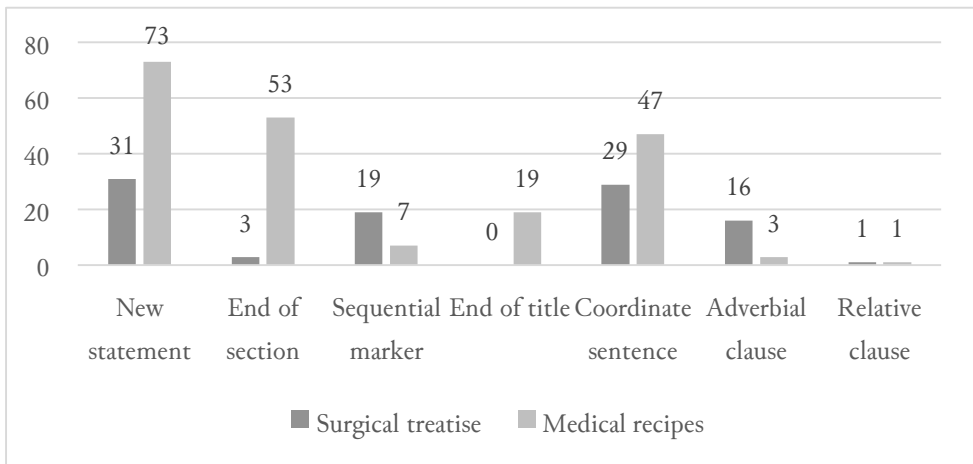


Fig. 2.78. Functions of the period at sentential level in H135

As observed in Figure 2.78,⁷³ the period occurs with different distributions in the surgical treatise and the collection of recipes. On the one hand, the period is more widely used in the medical recipes for the introduction of new statements, the marking off of sections and titles and the introduction of coordinate sentences. In the surgical treatise, on the other hand, it is more frequent for the introduction of sequential markers and adverbial clauses.

In addition to these uses, the period is also used at phrase level with three different functions:

a) To list the ingredients in a series:

- (14) Take tartur and powder of musterd sede of either iiij penyweight. powder of pepper, allome calcionid od eche ij penye weight, borace viij penyweight powder (f. 45r).
- (15) Take half a pound of Rosen. half a pound of parrosen. virgin v pennywaight. wax and frankensence of ether a quarter of a pound. ij drammes of Comfere an ounce of mastick of hart tallow a quarter of a pound maike powder of them (f. 106r).

b) To introduce units of measure:

- (16) Then put vpon the said water 3. pounds. of your said grownd malt letting it stand soo an howre or moore without styrring And immediatlye vpon the emptijng of your furnes haue redye 30 gallons moore which you must see the as the fyrst Then pull vp your tapp (f. 120v).

⁷³ Due to the equal length of the texts under study (19,348 and 19,482 words in the surgical text and the collection of recipes, respectively), the findings in this section are provided in raw data.

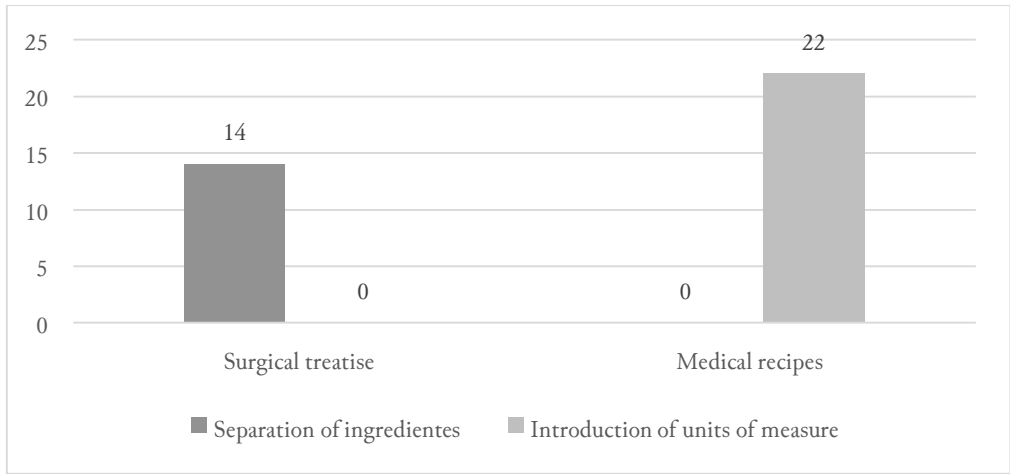


Fig. 2.79. Functions of the period at clausal level in H135

Figure 2.79 shows the frequency of the different functions of the period at clausal level, where it is easily observed that, in the medical recipes, it is used for the introduction of units of measure. In the surgical treatise, in turn, the period operates marginally for the separation of ingredients.

Finally, at phrasal level the period is used after numerals (17) as well as to circumscribe them (18) (7 and 61 times in the surgical treatise and the collection of recipes, respectively):

- (17) and munge them well together vpon the fier and put therto iij. of wheat flowre and ij ounces of powder of lynesede and ij ounces powder of plemgrece and put therto white wyne and sathe alle together (f. 35v).
- (18) Taik an ounce of lapis calamaris and an vnce of Totie Allexandrin brey them. ix. tymes and euerie tyme quenche them in white wyne or rose water then grend them small with capons greace and aannoynt thye eie or put of the powder in rose water and drop into thyn eie with a sether (f. 96r).

2.3.2.6.1.2. The comma

The comma is the shortest pause (Tannenbaum 1930: 140; Petti 1977: 26; Quirk et al. 1985: 1615), introduced in English documents towards the sixteenth century replacing the functions of the virgule (Calle-Martín and Miranda-García 2007). In H135, however, these two symbols coexist, sharing particular functions. Thus, the comma is almost twice as many times as frequent in the surgical treatise as in the collection of recipes (404 over 232 instances, respectively). At sentential level, it performs the following functions:

a) After titles:

- (19) For the Stone, Taike Allexander sede gromell sede colliander sed percelie sede saxifrage fyne tyme ana. put therin a race of ginger maide into fyne powder and mengle them well together and drink therof with the malmesey or staile aile or bloodwarm (f. 97r).

b) To mark off the beginning of a new statement:

- (20) and let it stand vpon the fier to all be meltid then let it kele and put it in a glas to kepe, This water is callid water of corall of the noblenes of yt as also for it hathe a colour like read Corall (f. 69r).
- (21) For the scabe in the syde Taike viniger, reddes ynyons / rose leues or leues of a rose cake, boyle them well together lay them hote to thy bare syde after manner of a plaister do so dyverse tymes. (f. 86v).

c) To introduce sequential markers:

- (22) Take the roots of lyllye and the leaves of violet and put them in water the space of one howre, then strayne them and cast the water away and put them in a mortar and cast therto a litle butter and yolkes of Egges (f. 54r).
- (23) Frie it in a pan, strein yt throughe a clothe and anoint the sore with a fedder, or take shepe tryddles and blend them well with creame of

mylke, then strein yt and therwith with a fether annoint the burnid or scaldid place ij or iij in a daie./ (f. 78v).

d) To introduce coordinate sentences:

- (24) Then take lynet wett in the white of an egge and laye yt into the hole, and reneve yt not to the second daye And if ther leave any of the scrophule in the hole, then strew theron pulvis affodilum and whet it is clene then heale it vp (f. 51v).
- (25) Frie it in a pan, strein yt throughe a clothe and anoint the sore with a fedder, or take shepe tryddles and blend them well with creame of mylke, then strein yt and therwith with a fether annoint the burnid or scaldid place ij or iij in a daie./ (f. 78v).

e) To introduce adverbial clauses:

- (26) put therto turbentyne alwaies stering yt well and kepe yt to thy vse, For it is precious and wounderfull goode to all manner of Roting of wounds (f. 57v).
- (27) Put this water into a glasse and kepe it for yt is a verie good water to washe therwith any sore and namelie a sore legg and will heale yt without any other salve, if the sore be not verie olde, Thow shalte worke with it in this manner (f. 75v).

f) To introduce relative clauses:

- (28) soome vessell of glasse or earthe leded within of the whiche dounge will coome a watter withoutt savour or evell smell, which wilbe vere good to take of all maner of spotts or blemishe in the face (f. 115v).

g) To explain what has just been said:

- (29) Thowe shalt knowe when dura matter is hurte by thes tokens, Akinge in the heade, readnes in visage, swellinge in the eine And rasinge blacknes of the townge (f. 34r).

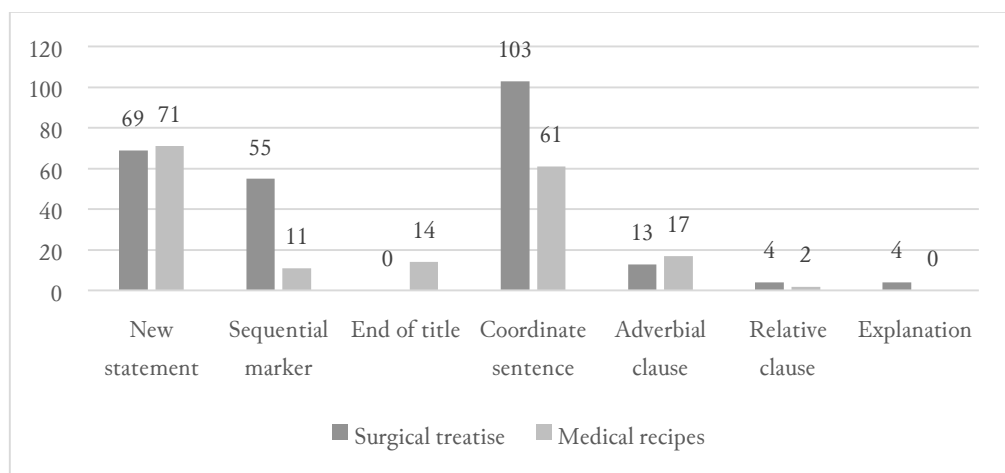


Fig. 2.80. Functions of the comma at sentential level in H135

As shown in Figure 2.80, the surgical treatise and the collection of recipes show different distributions of the comma depending on its function. Thus, in the surgical treatise, the comma occurs more widely for the introduction of sequential markers and coordinate sentences, as well as explanations. In the medical recipes, however, the comma predominates after titles. Finally, the use of the comma is similar in both text types for the introduction of new statements, adverbial and relative clauses.

The comma also works at clausal level, where it is used to list different ingredients in a series (156 and 56 instances in the surgical treatise and the collection of recipes, respectively):

- (30) To maike Antioche royall. Take spyknell centorie, burnet, origane, herbe robert, scabions ribwoort, brome, wena, vervain, egremonie matfelon, bugle, wylde sage, mugwoort, pulirole mountain, brownwoort, betonie, malows playntain, pulial royall, pegle, fumiterre of munde, dayse, calaminte, prymrose, mellefoyle, herbe John, strawberre (f. 72r).
- (31) if yt be not small ynoughe delay it with barlon water or with pure water well sodden boyle your meat with cold herbes as lettice,

Spinage, burrage, endyve, Giacorie and violet leaves great Rasinge, prownes and purselein (ff. 109r–109v).

2.3.2.6.1.3. The perioslash

The perioslash, also referred to as the punctus plus the virgule (de la Cruz-Cabanillas 2014: 149–150), has been elsewhere found to share the macro-textual functions of the period. It displays a specialised use insofar as it only features one grammatical function in the surgical treatise and the medical recipes, i.e. to signal the end of a section (33 and 67 instances, respectively).

- (32) and then fasten thervpon a paire of pinsonnes and draw it out and after heale it as is said of other wounds. / A wounde with a Sworde happenithe to be many times in the thighe with hurting of the bone or not Thow shalt heale it in the same manner as is said before of woundinge of the arme (f. 67v).

2.3.2.6.1.4. The virgule

The virgule is found in English texts from the fourteenth century onwards, spreading substantially throughout the fifteenth century. It was originally used for signalling short pauses although it could also serve for ending a whole sentence or clause (Hector 1958: 47; Esteban-Segura 2010: 100). The Renaissance virgule consists of “an oblique stroke of varying length, thickness and ornamentation” with its top and bottom extremes slightly curved rightwards and leftwards, respectively (Petti 1977, 26). Used for denoting short pauses, this punctuation symbol could be in fact a substitute for nearly any punctuation mark, showing different functions both at clause and phrasal level (Tannenbaum 1930: 143). In H135, it occurs 63 and 55 times in the surgical treatise and the collection of recipes, respectively. It shares some of the functions of the comma, albeit to a lesser extent. Thus, it has been employed at sentential level with the following purposes:

a) To signal the end of a recipe:

- (33) beat them well together mixe therwith wheat flour and honye vnto it be plaister like and if thow cannot get burtre leavs It will do well with the other thinge or with the grene bark of burtre / (f. 110v).

b) To mark off the beginning of a new statement:

- (34) And when it is coulede powr furthe the water that thow fyndes therin and after kepe yt to thy vse/ This ointment is callyd popilion because yt hath his moste vertew of the burions of populer (f. 53v).
- (35) Take a handfull of beans / proche them on a tyle stone pyke of the hulles braie them in a mortar to fyne powder , Sethe that popuder in a pynte of rede wyne and synamond (f. 77v).

c) To introduce sequential markers:

- (36) Thes embrocacions we vse for diuersity of tymes and we dight the patient therwith vnto ther comme mater therfro, then lay vnto the wounde lynnet and nothing els vnto the wound be well dried / After that put therto vnguentum fustum vnto it be hole whiche is thus made (f. 36r).
- (37) And then poore yt into another pan or dishe wherin must be malmesey muscadell or other whyte wyne that is vere good. after take it owt of the wine, and melt it again / then power it again vpon the said wine doing so vij tymes (f. 118v).

d) To signal the end of a recipe:

- (38) beat them well together mixe therwith wheat flour and honye vnto it be plaister like and if thow cannot get burtre leavs It will do well with the other thinge or with the grene bark of burtre / (f. 110v).

e) To introduce coordinate sentences:

- (39) After streine yt and put therto honye to make yt delycate / And in the space of xv daies *with* vsinge of this drinke the child shalbe hole, And the Scrophule is soft in touching And the Glandule is harde./ (f. 51v).
- (40) Then heale it withe a plaister made of wheat flowr honie, and yolk of an egg / And this plaster will keep it open a good space and then will it heale / the woormes ar as bigg as good pynus and vere sharp (f. 100r).

f) To introduce adverbial clauses:

- (41) For phisick saithe that it is possible a man to lyve *without* a milt then better he maie live with part of a mylt / When the the mylt is in sew vp the wound saving a hole in the louter-moste parte of the wounde wher thou shall put in a tent (f. 62v).

g) to explain what has just been said:

- (42) And is so callid as it semithe bicause (truthe is) it is alwaies full of dead fleshe which mormall maie be causid in two manners / Of a wound or bresure noughtelie healid and so drawing it to a festure and frome a fasturing to a mormall (f. 69r).

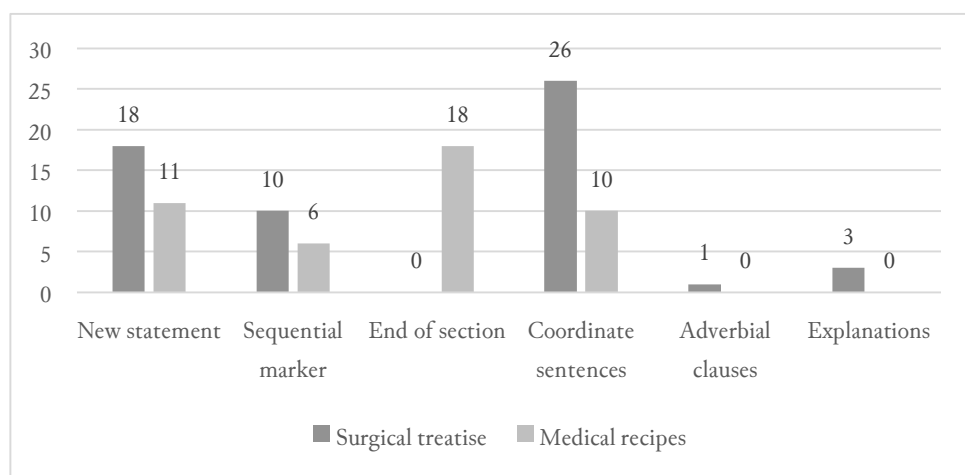


Fig. 2.81. Functions of the virgule at sentential level in H135

The data in Figure 2.81 show that the virgule is much more frequently used in the surgical treatise for the introduction of new statements, sequential markers and coordinate sentences. In the medical recipes, in turn, the virgule is used 18 times to mark the end of a recipe.

At clausal level, the virgule is employed to list the ingredients in both text types (5 and 14 times in the surgical treatise and the collection of recipes, respectively):

- (41) Take powder of drie rootes langdebeffe iiij vnces / of powder of the roote of Clate v ounces / of powder of the roote of Celodyne (id est celidony) j ounce / powder of ginger j ounce / of quicksilver ij ounces / waxe iiij ounces in somer and ij in winter of Rosyn as much as sufficithe (f. 50v).
- (42) For a Vehement fever or ague take feir whey clarified and barley well stepid and huskid / buglos / Sicurie / Endive and licores (f. 76v).

2.3.2.6.1.5. The colon

The colon's function is to inform that "what follows the colon is an explication of what precedes it or a fulfilment of the expectation raised" (Quirk et al. 1985: 1620).⁷⁴ According to Calle-Martín and Miranda-García (2007: 372–373), there is no consensus in the literature as to the use of the Elizabethan colon: while Tannenbaum argues that the colon was used for commas (1930: 142), question marks, exclamation marks and periods, Petti states that it was used in combination with the virgule to mark off the end of a paragraph, only acquiring its modern use at the end of the period (1977: 27).

The colon occurs marginally in both text types, where it only operates at sentential level. In the surgical treatise, on the one hand, it occurs just once, for the introduction of an adverbial clause (43). In the medical recipes, on the other, the colon is used 9 times to mark off the end of a recipe (44) and 7 times to link coordinate sentences (45).

- (43) yt cannot be perceyvyd by touchinge with thy finger: When the
breaking is openly perceyved then cut the fleshe aboue croswise and
do as is abouesaid of the straite wounde, and yf thowe be dowlfull
whether it be broken or not cut not the fleshe by the span of v or vij
dayes (f. 36v).
- (44) which haue bene gryetlye venemid bothe in the face bodye and also
on the head. probat: Againste the harte burne Drink a sponefull of
vinager for that is a very good Remedie and well proved (f. 104r).
- (45) 2 or 3 dropps of the Iuce of lemonndes or Cytrons: And let there be
of all thes waters so proportioned together. half a glasfull or soome
what moore into the which you shall put a peece of Sugerr (f. 116r).

⁷⁴ It may also be used for the introduction of a whole quoted sentence.

2.3.2.6.1.6. The semicolon

The semi-colon entered the punctuation system at the end of the fifteenth century with “a function between the other two marks”, when just a comma is not sufficient and the colon slows up the utterance more than necessary (Parkes 1992: 49, 1978; see also Calle-Martín and Miranda-García 2007: 371).⁷⁵ In addition, the semicolon is a coordinating mark of punctuation, i.e. asyndetic coordination.

The colon appears once in the surgical treatise to link coordinate clauses (46). In the medical treatise, in turn, it is used once for the introduction of a new statement (47) and twice to link coordinate clauses (48).

- (46) And the hand that is owt of iointe, with thy other hand and draw it a litle and lightlie yt shall go into the ioint again; and an other syde put a spelt, v or vi daies together and after annoint it with a litle dewte (f. 60v).
- (47) you may maik powder therof and drink that powder when ye go to bed with water aile or wyne; also It is good to drink the water or ale wherin akorns are well sodden./ (f. 111r).
- (48) Done thus put it into an ould cupp for thy vse; and whan thow haist nede of yt taik a litle of it in a Saucer and warme it on the Coales and taik a fether and annoint the patient therwith and bynd a Clothe about the sore (f. 103v).

2.3.2.6.1.7. The parenthesis

The parenthesis is a mark of punctuation that can be used with different purposes: to introduce exclamations, interjections, vocatives, asides or quotations (Tannenbaum 1930: 144–145); reflecting “the needs of those who were

⁷⁵ Quirk et al. state that the semicolon is the “coordinating mark of punctuation, corresponding most nearly in value to the linguistic coordinating conjunction ‘and’” (1985: 1622).

accustomed to silent reading” (Parkes 1992: 49, 1978); and to introduce parenthetical material, to emphasize, or simply to indicate the reader (Petti 1977: 27).

In H135, the parenthesis has been used in the surgical treatise and the collection of recipes to introduce an explanation to the reader (one and eight times, respectively).

(49) Malum mortuum is callyd in frenche and also in englishe a Mormall which is as muche as to saie a dead sore, And is so callid as it semithe because (truthe is) it is alwaies full of dead fleshe which mormall maie be causid in two manners /

(99) Therfore I devised this remedie I did taik a burtre or eldertre stick (for of all ther things or woode which I provid that is the best) as bigg as my thombe almoste thre inches longe, the core being thursten furthe (f. 89r).

2.3.2.6.2. Analysis

The present section compares the different practice of punctuation in H135 in order to ascertain if text type plays a role in the use of punctuation. For the purpose, Table 2.1 shows the distribution of the punctuation symbols in the surgical text. As observed, punctuation is mainly structural, most symbols operating at sentential level for the introduction of new statements (118), sequential markers (84), coordinate sentences (159), adverbial and relative clauses (31 and 5, respectively). Punctuation, in turn, is also used at clausal level, albeit to a lesser extent, for the separation of ingredients (159) and the introduction of additional information for the reader (8). At phrase level it is exclusively used to circumscribe numerals (7).

Regarding the distribution of the different symbols, the comma is the most frequent (404), followed by the period (120), the virgule (63) and the

perioslash (33). The colon, the semicolon and the parenthesis, however, occur marginally with just one instance each.

	.	./	,	/	:	;	(,)	Total
<i>Introduce new statements</i>	31	0	69	18	0	0	0	118
<i>Sequential markers</i>	19	0	55	10	0	0	0	84
<i>End of section/recipe/paragraph</i>	3	33	0	0	0	0	0	36
<i>End of title</i>	0	0	0	0	0	0	0	0
<i>Introduce coordinate sentences</i>	29	0	103	26	0	1	0	159
<i>Introduce adverbial clauses</i>	16	0	13	1	1	0	0	31
<i>Introduce relative clauses</i>	1	0	4	0	0	0	0	5
<i>Separate ingredients</i>	14	0	156	5	0	0	0	175
<i>Circumscribe numerals</i>	7	0	0	0	0	0	0	7
<i>Introduce units of measure</i>	0	0	0	0	0	0	0	0
<i>Additional explanation for the reader</i>	0	0	4	3	0	0	1	8
<i>Total</i>	120	33	404	63	1	1	1	623

Table 2.1. Punctuation system in the surgical treatise

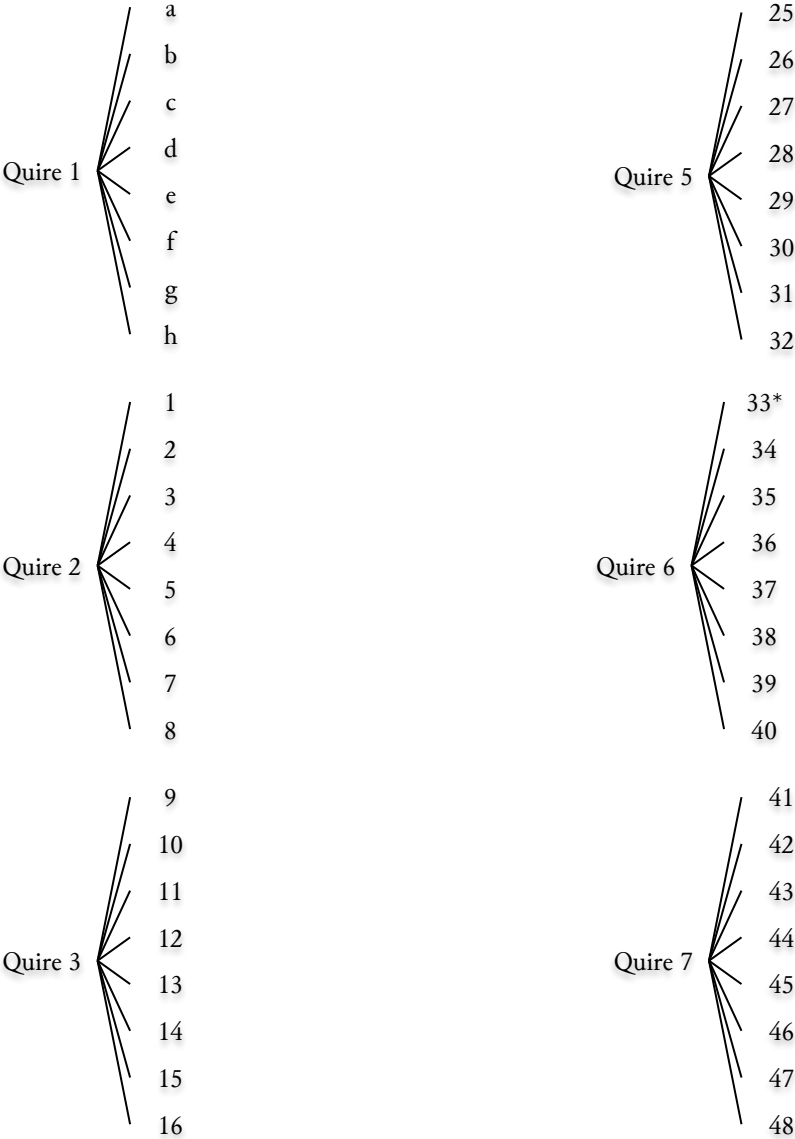
A different distribution is obtained in the recipes. As observed in Table 2.2, punctuation is mainly structural, the majority of the symbols used at sentential level for the introduction of new statements (155), sequential markers (24), coordinate sentences (127), adverbial and relative clauses (20 and 3, respectively), and the marking off of the end of a section (147) or title (33). At clausal level, punctuation is used to separate ingredients (70) and to introduce additional information for the reader (8). Finally, punctuation is used at phrase level to circumscribe numerals (61) and to introduce units of measure (22).

The most frequent symbol is the period (286), followed by the comma (232), the perioslash (67), the virgule (59) and the colon (16); the semicolon and the parenthesis, however, are erratic in the data (2 and 8, respectively).

	.	./	,	/	:	;	(,)	Total
<i>Introduce new statements</i>	73	0	71	11	0	0	0	155
<i>Sequential markers</i>	7	0	11	6	0	0	0	24
<i>End of section/recipe/paragraph</i>	53	67	0	18	9	0	0	147
<i>End of title</i>	19	0	14	0	0	0	0	33
<i>Introduce coordinate sentences</i>	47	0	61	10	7	2	0	127
<i>Introduce adverbial clauses</i>	3	0	17	0	0	0	0	20
<i>Introduce relative clauses</i>	1	0	2	0	0	0	0	3
<i>Separate ingredients</i>	0	0	56	14	0	0	0	70
<i>Circumscribe numerals</i>	61	0	0	0	0	0	0	61
<i>Introduce units of measure</i>	22	0	0	0	0	0	0	22
<i>Additional explanation for the reader</i>	0	0	0	0	0	0	8	8
<i>Total</i>	286	67	232	59	16	2	8	670

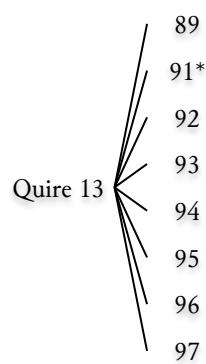
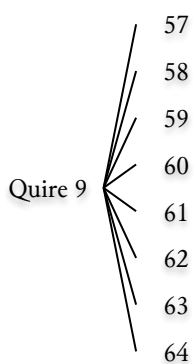
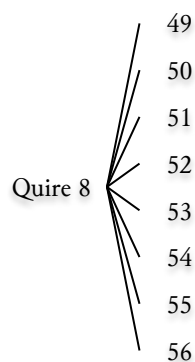
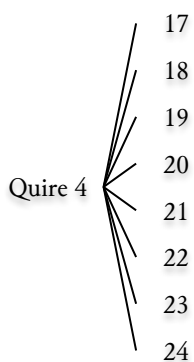
Table 2.2. Punctuation system in the medical recipes

2.4. Appendix

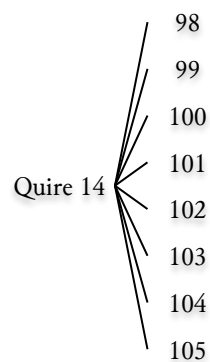
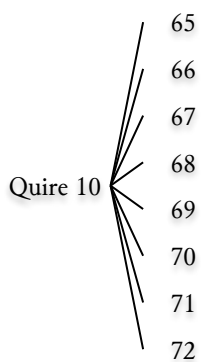


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⁷⁶ * 33. Missing, therefore 40 is a single sheet as should be joined to 33. There is some evidence that the page has been cut.



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⁷⁷ * 91. Misnumbered, not missing.

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⁷⁸ * 134. Misnumbered, not missing.

⁷⁹ * 182. Page number jump.

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Quire 29

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Quire 27

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⁸⁰ * are not numbered.

CHAPTER 3

THE EDITION OF HISTORICAL MANUSCRIPTS

Philology: 1. Love of learning and literature; the study of literature, in a wide sense, including grammar, literary criticism and interpretation, the relation of literature and written records to history, etc.; literary or classical scholarship; polite learning. 2. † Rendering Greek *φιλολογία* love of talk, speech, or argument (as opposed to *φιλοσοφία* love of wisdom, philosophy). 3. The study of the structure and development of language, the science of language and linguistics. Now usually restricted to the study of the development of specific languages or language families. Research into phonological and morphological history based on written documents (*OED* s.v. *philology*, n. 1-3).

The above definition of philology from the *OED* implies that it is a discipline in which the study of texts, of any genre, is paramount. Thus, texts are used for different purposes that range from linguistic analysis to literary criticism, among others. In this vein, Gumbrecht (2003: 2–4) has identified four major implications in the definition of philology as the study of texts: 1) philological practice has an affinity with those historical periods that see themselves as following a greater cultural moment (the European Renaissance or the nineteenth-century romanticism, among others); 2) it identifies and restores texts from each cultural past in question, including the identification of texts that have come to us in fragments; the documentation of texts present in several not completely identical versions; and the commentary in order to bridge the historical contextual gap between the original and the actual readers of the text; 3) it maintains a distance between hermeneutics and interpretation as textual practice, having sobriety, objectivity and rationality as its main values; and 4) it plays an important role in

those disciplines that deal with the most chronologically and culturally remote segments of the past, such as Assyriology or Egyptology, among others.

3.1. Textual scholarship

The four implications above are in close relation to textual scholarship, that is a general term that has been used to describe “all the activities associated with the discovery, description, transcription, editing, glossing, annotating, and commenting upon texts, [where] textual scholars study the *process* (the historical stages in the production, transmission, and reception of texts), not just the *product* (the text resulting from such production, transmission, and reception)” (Greetham 1992: 2). Interestingly enough, this definition suggests that textual scholarship is very much subjected to the inclinations of editors in their search for the best base-text upon which they will create their edition, as well as their political or religious ideology when editing historical or religious manuscripts.

The methodology of textual scholarship involves different but complementary stages such as bibliography, codicology, palaeography, stemmatics and scholarly editing. These practices of textual scholarship, however, may be entirely or partially carried out. Consequently, some bibliographers would conceive the work on bibliography as an end in itself, whereas most textual scholars see palaeography, codicology, analytical and descriptive bibliography as the introduction to the real purpose of textual scholarship, which is “the reconstruction of the author’s intended text or a critical edition focusing on some other version of it” (Greetham 1992: 5–9).

When it comes to the different phases through which textual scholarship can be carried out, enumerative or systematic bibliography is concerned with the physical evidence in books as a powerful tool for historical investigation (Greetham 1992: 5; Tanselle 2009: 7); codicology and palaeography aim at the physical description of the volume, the former focuses on the characteristics of the volume (material, dimension, ink, decoration, quiring, ruling and foliation),

while the latter analyses the script, numerals, marginalia, abbreviation and manuscript corrections (Greetham 1992: 6; see Chapter 2 for such analyses in H135); stemmatics studies the relation between texts, a fundamental discipline to text history together with linguistic analysis (van Reenen and van Mulken 1996: vii); and finally, scholarly editing concentrates in the edition of texts.

3.1.1. Scholarly editing

Scholarly editing is whatever produces those weighty tomes of authoritative texts accompanied by thick annotation, dense critical apparatus, lists of variants and historical collation, glossaries, and commentaries: in other words, those volumes in which the text is thought to need the intervention of scholarship for its better understanding (Greetham 1995: 1)

The culmination of a textual scholar's labour is the edition of the text, where all the analyses carried out until this point are put together in order to prepare "a version of the work for presentation to a reading public, [...] where the first decision to be made is whether the edition is to be *critical* or *non-critical*" (Greetham 1992: 347). The former attempts at the creation of a single text out of different but complementary versions, whereas the latter is meant to reproduce a text already in existence.

Textual scholars have traditionally adopted different approaches in the edition of texts. Consequently, non-historical scholarly editions could be exemplified in the work of the editor of a publishing firm who is interested in collaborating with the author (in terms of spelling or punctuation, among others) to improve the final work. This practice is labelled 'creative', differentiating it from the editions performed by professional scholars, who aim at preserving a text that existed at some prior moment (Tanselle 1995: 13–14).

Historical scholarly editions, in turn, aim to move towards the texts that were intended by their authors, that is, their intentions. There are two basic

procedures in order to accomplish this task: 1) the editor maintains a considerably passive role of preserver and purveyor; or 2) the editor becomes the active repairer of the damages wrought by time (Tanselle 1995: 16). These two different methodologies show how the same objective can be reached following two different paths. While the first one is conservative in the sense that the ultimate purpose of the edition is the transmission of the text in the edited document, the second is more concerned with amending that text and presenting it to the reader in a version as perfect as possible.

3.1.1.1. Critical editions

From a traditional viewpoint, the first two areas in which textual criticism was practiced were classical and biblical scholarship. The labour of the textual scholar could then belong to *lower criticism*, the aim being the determination of reliable readings; or to *higher criticism*, when the scholar “took the texts and subjected them to interpretation, including historical and aesthetic commentary, critical annotation, and so on” (Greetham 2013: 16; see also Greetham 1992: 297–305). Within this process, the textual scholar would carry out two basic operations: *recensio*, the process of establishing the archetype or latest common ancestor of all surviving manuscripts; and *emendatio*, the correction of what appear to be errors (to the eyes of a particular editor at least) in all preserved texts (Tanselle 1983: 25).

These traditional approaches to textual scholarship contrast with the work of Joseph Justus Scaliger, considered the founder of textual criticism, as his work *Astronomica* evinces the divergences between the subjective eclecticism of earlier editors and the more conservative methodology of the new. After him, two directions were adopted in textual criticism: 1) to place the study of the text and the editorial restoration of authorial intentions within the broad discipline of philology, where textual criticism was often seen as the summit of philological work; and 2) to bring an increasingly specialized competence to the discipline of

textual criticism, where edition is dependent on the application of verifiable scientific principles (Tanselle 1995: 16). The former direction was predominant during the early modern period (from the seventeenth to the nineteenth century), while the latter was adopted from the nineteenth century to the present day (Greetham 1992: 314).

3.1.1.2. Non-critical editions

Non-critical editions have been defined by Greetham as a reproduction of a text already in existence and its use “as a vehicle for annotation or interpretative criticism”, where different types may be found (Greetham 1992: 347):

1. The photographic reprint: a technically exact reproduction of the original.
2. The type facsimile: it attempts to reproduce the actual physical appearance of the original in a different type-setting, by observing such features as the original lineation, type-size and type-face in the reprint (Greetham 1992: 350).
3. The diplomatic transcript: it dispenses with any attempt at such scrupulous fidelity to appearance, and concentrates primarily on the textual content of the original, reproducing the exact spelling, punctuation and capitalization (usually) of the *diploma* (the document), but transcribing the text into a different type-face, with different lineation (except in verse, of course) and different type sizes.

3.2. The Edition of H135

The edition provided in the present dissertation is semi-diplomatic inasmuch as it not only offers a faithful reproduction of the original but also incorporates duly signalled, minimal editor intervention in order to facilitate the task for those readers not acquainted with early Modern English scribal practices.

The present semi-diplomatic transcription follows a graphemic approach, that is, the use of a single symbol for each letter in the text, irrespective of the different renderings that the scribe may employ for the same letter (i.e. different allographs for <e> or <r>, among others).⁸¹ The following editorial guidelines have also been adopted:

- Line breaks have been faithfully reproduced.
- Punctuation, word division, spelling and capitalization have been preserved as in the original witness.
- Abbreviations have been expanded in italics:



Fig. 3.1. who so euer

- Superior letters have been lowered to the line:



Fig. 3.2. with

- Insertions, which may appear above the line (/-\) or in the external margin (\-/-), are marked with the use of the slashes:

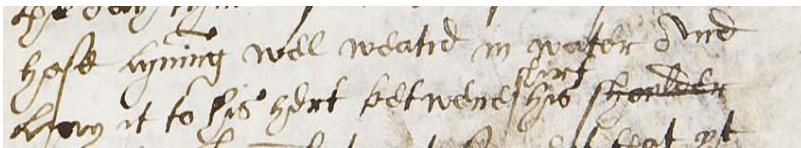
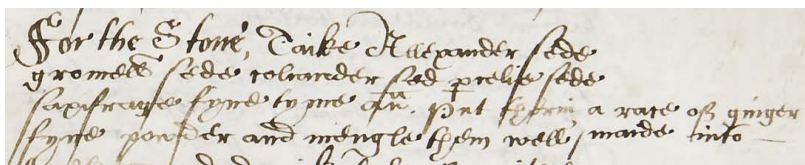


Fig. 3.3. Insertion above the line⁸²

⁸¹ This is opposed to the graphetic approach, where a different letter is employed for each of the allographs used by the scribe for the same letter.

⁸² hose lynning well weatid in water And | lay it to his hert betwene his /shirt\.

Fig. 3.4. Insertion in the margin⁸³

Classical Text Editor (1997) has been selected as the software to prepare the edition as it allows for the incorporation of different apparatuses with different information. Thus, the edition is accompanied by two apparatuses. On the one hand, the first is used for manuscript corrections, where cancellations (*cancel.*), expunctions (*exp.*) and emendations (*emend.*) have been included. On the other, the second contains the information appearing in the bottom margin (*bot. marg.*) or in the external margin (*ext. marg.*), as well as the lacunae (*lac.*). In the case of the annotations in the margins, the hand in which they are rendered is also specified, i.e. HA, HB or HC (for Hands A, B or C, respectively).

A digital edition has also been prepared, which is freely available online (Figure 3.5) and presents some advantages over the printed one. First, the reader can check the choices made by the editor at any moment, as they are rendered in italics and can be compared to what is written in the original witness. Second, the reader is able to analyse textual aspects that can only be found in the original, such as text layout and the different hands. Finally, the manuscript, together with its semi-diplomatic transcription, can be accessed from any device with internet connection, thus avoiding exhausting and expensive trips to the libraries in which the witness is housed.

⁸³ FOR THE STONE, Taike Allexander sede | gromell sede colliander sed perclie sede | saxifrage fyne tyme ana. put therin | \\ a race of ginger maide into // | fyne powder and mengle them well.

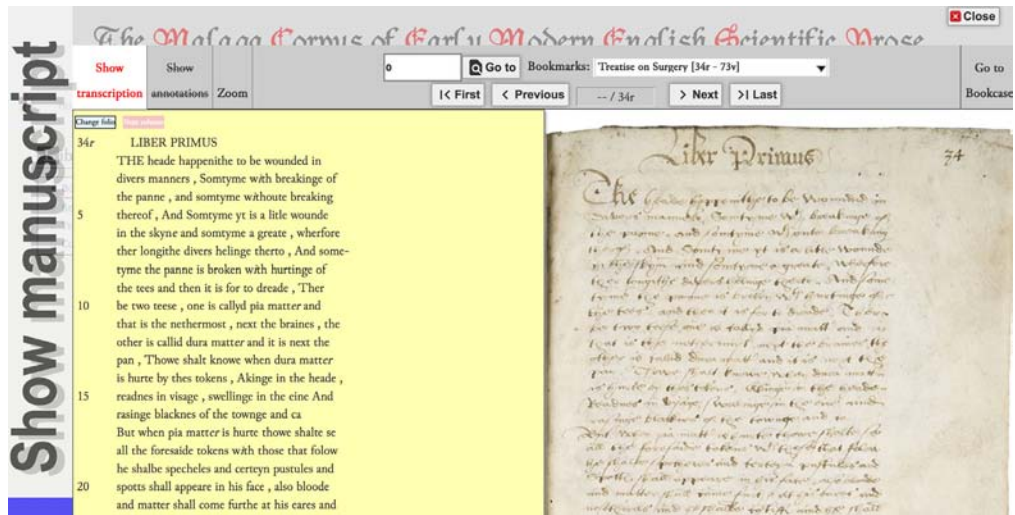


Fig. 3.5. The digital edition of H135 (available at <http://modernmss.uma.es/Library>)

LIBER PRIMUS

f. 34r

THE heade happenithe to be wounded in
 divers manners, Somtyme with breakinge of
 the panne, and somtyme withoute breaking
 thereof, And Somtyme yt is a litle wounde
 in the skyne and somtyme a greate, wherfore
 ther longithe divers helinge therto, And some-
 tyme the panne is broken with hurtinge of
 the tees and then it is for to dreade, Ther
 10 be two teese, one is callyd pia matter and
 that is the nethermost, next the braines, the
 other is callid dura matter and it is next the
 pan, Thowe shalt knowe when dura matter
 is hurte by thes tokens, Akinge in the heade,
 readnes in visage, swellinge in the eine And
 rasinge blacknes of the townge and
 But when pia matter is hurte thowe shalte se
 all the foresaide tokens with those that folow
 he shalbe specheles and certeyn pustules and
 20 spotts shall appeare in his face, also bloode
 and matter shall come furthe at his eares and
 nosethrills and he shalbe costiff and he shall
 haue colde sheveringe axes thries or iiij tyme on
 the daie and this is certeyn token of deathe
 and is the last of the foresaide signes and he
 shall not live at the most passinge a hundreth
 Dayes

WHEN the breakinge of the pane is greate with
 a large wounde whether yt be made with sworde
 30 Or other weapone and their be any lose bone,
 drawe it furthe if thowe maye that is to saie
 if yt stick not fast or if the patient blede not
 muche, or if thowe be not like to greve þe patient
 verie sore, And so sonne as the bone is furthe
 Take a softe pece of a lynnene clothe and put it
 softelie betwene the pan, and dura matter with a gosse
 pen maide therfore, And on the mowthe of the
 breakinge of the pane, laye small drie lynet

f. 34v

40 and aboue that laie sotill lynet with the white of
 an egge, and therof sprede on a brode clothe, lay
 it aboue and bynde fast, And thowe shalt dight it
 ij or iij on the daie, and at euerye tyme take out
 the oulde lynet and put in newe, and so thowe
 shalte woorke vnto the sleshe be growen aboue
 it . If it So be that ther growe any fleshe vpon
 Dura mater before the pan be restorid then
 take sotil powder of poumishe well washed
 and dried before and shrewed thervpon
 50 and it shall frete it awaie withoute any disease
 if so be that after the pan be neshered ther
 grewe aboue the nesheringe any prowde fleshe
 Then take powder of Armodactulus shrewe
 thervpon and laye aboue it lynet . And if thow
 cannot get Armodactulus then take the powder
 of Calcioned Alom, And when the fleshe is
 freted awaie then lay therto Apostolicon *which*
 is maid in this wise. Take of pitche and of
 Calophony, galbanum, sarapine, gume amonac oppa-
 nac, of eche *half an* vnce of wax, thre vnces if it be
 60 in sommer, if it be in wynter ij vnces, viniger
half a pinte, Put the Viniger in a Vessell with the gummes
which cannot be powdred that is to say galbanum amonac
 Serapine opponac and put them on the fier and melt
 them, then put therto the pithe and the calophony
 and the waxe, And when all is molten set yt
 fro the fier and shrewe therin halfe an vnce powder
 of mastik and as muche Olibanum and stere alle
 well together, then powre it furthe into a
 Vessell of water streanid throwghe a bagge of
 70 canvas, And if therbe put therto ij vnces of tur-
 pentyne it is muche better, And when it begin-
 nithe to cole in the water, then knede yt betw-
 ixte thy hande and make therof Rools, and
 lap them in rede lether. This pretiouse
 Apostolicon is goode for the milte and principally
 for wounds, And also it is goode for the breste

f. 35r

57 is] HA. *ext. marg.* To make Apo | stolicon 60 viniger] HA. *bot.*
marg. half a

or of any other place caused throughe bryse or
Stroke or fall /

80 IF THE breakinge of the pane be greate and the
wounde aboue is straite so that thow cannot be
certeyne of the Quantitie of breking Then put
in the finger and fele diligentlie how muche the
breking is, for thowe cannot better knowe the
breking of the pan then with the towching of
the finger, And when thowe haste knowledge
of the quantity of breaking of the pane then cut
the straite wounde cros *with* a Rasour and *with*
some crokid sharpe Instrument reise vp the fleshe
90 frome the pan And yf ther be any lose bone draw
it furthe, neuertheles if the patient blede fast
stawnche the bloode and draw nothinge furthe
Vntill the seconde day *with* pynsons maide ther-
fore And then lay a clene olde softe lynnē
clothe betwene the pan and dura mater And
after dight yt as is saide in the next chapter
aboue And for the cut of the Rasour wete
lynet in the white of an egge and lay therin
and a dowble lynnē Clowte sprede aboue
And every morninge and eaveninge dight it
100 And when the pan is restored heale it vp *with*
vnguentum viride

f. 35v

IF THE Pan be broken in suche maner that parte
of it is pressed downe, And the superfluity therof
cannot be disseverid Then make holes aboute
that place *which* is broken inward for to lett
owt the matter and after heale yt like other
woundes

110 IF A WOUNDE be in the hede *without* breakinge of
the pan dipp lynet in the white of an egg
and fill the wounde ther*with* And if it be
in the winter tyme then let make an emb-
rocaction therfore in this wise, Take brama
vrsina, malows, xicorie, woodebynd of eche
like muche, of them ale an handfull *with* half

91 furthe] HA. *bot. marg.* vntill

of swynes grece and minge them well toge-
 ther vpon the fier and put therto iij.
 of wheat flowre and ij *ounces* of powder of
 lynesede and ij *vnces* powder of Femgrece
 and put therto white wyne and sethe
 120 alle together And when yt waxithe thik
 then set /it\ frome the fier and sprede therof
 Vpon a clothe and lay it therto Warme at euerye
 tyme And if it be in sommer tyme then make em-
 brocation in this manner, take a handfull of
 the leaves of malows, Stamp them and kneade
 them *with* iij *vnces* of olde swynes grece and not succid
 and put therto a little Luce of petit morel and
 a fewe leaves of violetts stamp theim and put
 130 therto wyne and wheate flowre and a litle hony
 and stere all together and put it vpon the fyer
 to it waxe thik then take it downe and let yt
 kele and sprede of this vpon a cloth and lay it
 to coulde, Thes embrocacions we vse for diuersity
 of tymes and we dight the patient ther*with* vnto
 ther *comme* mater therfro, then lay vnto the
 wounde lynnet and nothing els vnto the wound
 be well dried / After that put therto vnguen-
 tum fustum vnto it be hole whiche is thus made
 Take meat oile and shepe talow of eyther j *pound*,
 140 piche *half a pound*, Colophony iij *vnces*, waxe iij *vnces*
 in the sommer, and ij in wynter, mastik, olibanum
 galbanum, amoniac, serapine, oppanac, put
 the gumes in a pan over the fier to it be
 well molten together, then take powder of
 mastic, olibanum, Shrew it on and stere it well
 together, to tyme it be wel dissolved, then
 put therto ij *vnces* of turpentyne and strein
 all throughe a canvas pocket into a vessell
 colde take yt oute and kepe it to thy vse This
 150 is goode for all maner of new wounds for it
 will gender goode fleshe and freat away bad

f. 36r

143 over] *cancel.* we

121 therof] HA. *bot. marg.* vpon 138 made] HA. *ext. marg.* To make |
 vnguentum fustum 151 bad] HA. *bot. marg.* fleshe

fleshe and makithe sores yelde fare matter by vertue
of his drawinge

f. 36v

OFF Swytinge somtyme is caused swelling in
the heade *withowten* wounde and somtyme
breakinge of the pan somtym *withowt*, And
the breakinge of the pan somwhiles apperith
by towchinge of thy finger and somtyme it is so
pryvy that yt cannot be *perceyvyd* by touchinge
160 *with* thy finger: When the breaking is openly
perceyved then cut the fleshe aboue croswise and
do as is abouesaid of the straite wounde, and
yf thowe be dowtfull whether it be broken or
not cut not the fleshe by the space of v or vj
dayes, and in mean tyme take hede to the
chere of the patient, and consider if his appe-
tyte be nought if he be costif if he slepe
noughtilie and vnethe can make water and
if he have a hote fever those are signes that the
170 *pane* is broken The cure therof is this, Cut
the fleshe aboue *with* a *rasour* cros wise as is
abouesaid x, And when swellinge of a
stroke is *withowten* any wounde or breakinge
of the pan make suche an embrocation, Take
wormewood, mugwoorte, hockes, Reu, comyn
annouse, of eche like muche, stampe them
and munge them *with* mete oyle in manner
of plaister wise, and sprede yt on a clothe
and lay it therto iij or iiij tymes on the daye
180 in winter warme in sommer colde And if
the matter be not put away withe that
Medicyne thenn make suche an embrocation *which*
shall soften yt and ripe the matter anon, Take
wormwood mugwoorte of eche a handfull
Stampe all thes well and put therto iij vnces
of wheate flowre and a litle powder of comyn
and put therto a quarter of a pynte of honye
ij vnces of swynes grece a quarter of a pynte of
white wyne and boyle them on the fier to

f. 37r

181 that] HA. *bot. marg.* med

190 yt waxe thik And plaster therof to the
 swelling sore vnto the matter fall to riping
 And where the matter restithe most make
 an issue and presse it owte welle with thye
 hande and if the matter be hard clamyd
 together then put in thy finger and breake yt
 and bringe it owt And after further
 the healinge as hereafter in care of Appos-
 temes

200 WHEN the fleshe is cut and therwith a pece
 of the pan by weapon or fall in so much the
 skyn dothe hing down Then pare awaye
 the pece of the pan so softelie as thowe cann
 then take the skyne and lay it to his place
 as it was at the begynninge, and sew yt to the
 vppermoste *perte with* a sharpe cnaelle neld
 And after take yt in oder diuers places as
 thowe seist nede, But the nethermost
perte of the sore thow shalbe leave open by-
 cause the matter and filthe many have
 210 issue their And shrewe euery daie aboue vpon
 The wounde *pulverem ruben consolidatum which*
 is thus made / Take powder of conferye dried
 j vnce, of bole armoniak j vnce, colophinie iij vnces
 mastik, *olibanum* either *half an* vnce, sangins draco-
 nis, gume of ether ij vnces stampe all together
 and kepe it together to thy vse, This
 powder is goode and preciouise to strange
 blode and to make consolidation and hole skyn
 aboue a wounde wherfore lay it aboue thy su-
 220 ing as I haue saide before and aboue the
 powder lay a playntane leef And in the nether-
 moste *parte* where I said it shoulde not be sued
 put a litle tent drie to purge out the matter
 vnto ther will come no more matter therfro

f. 37v

207 But] *cancel.* when

196 after] *lac.* 205 neld] HA. *ext. marg.* Anoynt thy | neld withe |
 Talowe 210 vpon] HA. *bot. marg.* the 212 made] HA. *ext. marg.* To
 make pul | verem rubens

and vntill the hole be fillid vp with fleshe
 and strewe euery daye ones of the rede powder
 aboue ix or x daies vnto thow se the fleshe grow
 fare together aboue, then shalt thowe lose þe
 thredes and draw them awaye and after laye
 230 therto faier lynet and vnguentum fustum or some
 other sanatif And if the sore yelde so muche
 matter then lay therto onelye drie lynet, For
 as all the doctors of this friend do say lynet
 is a greate dryer and a great clenser

WHEN THER ys a wounde in the visage
 as is the hippe or any other noble partie of þe body
 in so muche it ought nightlie to be sewed parte to
 parte Then take the partes, and put them even
 240 together in warde as tenderlie as thowe cann
 and take a sharpe qnarell nelde with eaven
 Twyne silke threde, And knyt euery stiche fast
 a ynche space betwene euery stiche And thowe
 may take a goose pen beyng open at the end to thrust
 again the neld poynt vpon the skynē syde so that
 the neld may enter into the pen and that the
 pen may thrust downe the fleshe vpon the
 neld and thow must thrust boldly and hard
 for thow shalt perceve it to require a greate
 thrust And if the nose be cut ouerthwarte
 250 then after it be iustlie sowed vp put twoo
 little pilows on ether syde to kepe the
 nose iust and stedfast And also a brydle
 and a splet vnder the nose end / And if it
 be nede take tente and put into the nose-
 thirlls to souke vp the matter And the filthe
 of the wounde And in alle manner of sewinge
 thow ought to leve a certeyn place open by
 the which the filthe may haue issue and ther-
 to put in a tent, except in a grystly place
 260 as the nose or eares which ought to be sewid
 vp euery dele And in alle manner of
 sewinge thow ought to vse pulverem Rubene

f. 38r

240 eaven] HA. *bot. marg.* twyne

as is abouesayde

FOR Wounde *with* arow or darte in the visag
 by the nose thrills or besyde the eighe on the
 cheke bone so that the yron haue entrid depe
 or slekythe *within* some narow croked place
 then it is wonderfull laboriouse to draw
 furthe, neuertheles euery su/r\gion after his
 270 Good wytt ought to devise how and in what maner
 yt may be best *donne* And if the shafte styck
 fast in the hede then must the wound be made
 larger besyde the shafte and a tent put in the
 depenes that yt maye touche the yron and
 shrew first powder of Capons vpon the tent
 anoynted *with* a litle hony And when the place is
 somewhat maide large *within* then wagge the shafte
 to and fro gentlye and will it wax lose And
 if it leave the head behynd then ax the patient
 280 how he stode whenn he was hurte that thow may
 take a sercher and serche the wound *within* like
 as the arrow went in And if the sercher
 may not come therto then shrew therin powder
 of Coipons to enlarge the hole vnto thow maye
 touche the head then shall thow haue an In-
 strument in manner of a pare of litle tonges
 And *therwith* draw furthe the heade and if
 it cannot be drawen furthe *withoute* greate
 hevines then better is to let yt remayn *within*
 290 For I haue known divers persons that haue
 lived many yeres *which* haue had Arrow heades
 and darte heades remanyng *within* them
 And when the heade is drawen owt then take
 a tent of lard of Bacone and put into the hole
 And if it be so depe that the larde cannot
 reche the Bottome Then take a tent of lynnen
 clothe and anoynt it aboute *with* swynes grece
 and put it into the hole And beware thowe
 hele yt not over sone vnto tyme the rust. of.

f. 38v

f. 39r

275 tent] *cancel.* and

269 his] HA. *bot. marg.* goode 298 thowe] HA. *bot. marg.* hele

300 the head and all other corruption be come fur-
 the Wherefore it is better annoynt thy tent
 with larde of Bakon then *with* swynes greace
 and when thowe sees the wounde is faier
 and Cleane and sendithe not oute muche ware
 but begynnithe to dry vp then *wi/t\bdraw* the tent
 and put yt no more in but heale yt vp like
 other woundes

IF THER be maide a Wounde *with* a brode hoked
 arowe and the head stickithe still *wi/t\bin*, Firste
 310 we ought to haue a pare of tonge therfore and
 ther*with* thrust the barbes of the heade together
 and then take fast holde by those two barbes and
 warely draw it furthe And if it yet stikfast
 then take ij holow pipes of yron or bras or
 two goose pens And then fast the tonge on the
 myddle *parte* of the heade and draw it owte
 wisely And when it is furthe heale yt as I
 haue sayde in the Chapter next before

OFF smytinge or fall sometyme the pan
 320 may be brused that it may fall inward *which*
 shall make the patient haue wounderfull
 dreames as he were among his enemyes
 and in bataille And when he slepethe he
 shoulde Seame as he wakid Fyrst shave
 the head where the Brusing is and cut the
 fleshe with a rasure in manner of a cros, Raise
 the fleshe frome the pan where it is thrusten
 downe And afterwarde the pan is *persid* all
 Aboute ther where it is fallen downe and the same
 330 pece raised vp and taken away, after heale it
 vp as is sayde of other woundes /

f. 39v

Soome manner of Scalles be curable and
 some ar not, Skalles that are */vn\curable* they are
 knowne by thes tokens, the skyne of the patient
 is hard and sad and it castithe out many
 Skalles *which* fretith away the heare, and this
 manner of Skall thow shalt not meddle with

328 all] HA. *bot. marg.* aboute

And ther is two manner of Skalles that is
 curable, one is *which* hathe great rooted heres if
 340 thow pull forthe some of the heeres thowe
 shalt se yt to be so and the heeres are stiff like
 the brystle of a swyne yet the skynne of the
 head is wounder hard and sad, the other skalles
which are Curable make great flakes on the hede
 and the patient hathe mucche eeke therof, and
 somewhiles ther *commethe* out therof mucche matter
 and fylthe, For the ij Skalles curable
 Take *a pound* of blak elebore an vnce piche. j vnce
 of meat oyle merge all those well together
 350 in manner of an oyntment And if it be
 nede in the wynter take oyle of mitts in stede
 of meat oyle And annoynt the head therwith
 And where thow sees any hear stik in the
 skalles then pull them oute by the rootes
 And annoynt it euery day to it be hole And if
 the skalle be newly broken out aboute
 the space of one yere then maye it
 be healyd with this oyntment. Take South
 360 erenwood, egremoyn, Skirwhite, leaves
 of winter, mugwoort, Spertwoorte of eche a
 handfull stampe them and kneade them well with
 meat oyle a pynte and *a half* and let them rest
 in the oyle x. or xij. dayes after streyn
 them and with this oyntment annoynt the
 skalle heade euery daye to he be hole And
 after tyme strew of this powder vpon the
 skull, Take powder of Stavesacre And
 powder of white elebore of eche j vnce And
 menge them together /
 370 is a Superfluitye springethe in some
 heade in manner as it were Blaynes, For
which take Sulphur vive ij vnces, the powder
 of white elebore j vnce, powder of *commyn*
 and powder of Stavesacre of eche an vnce
 and menge them well together with swynes

f. 40r

370 is] *lac.*

greace in manner of an oyntment and therwith
 annoynt the heade And this precieuse medcyn
 therfore is provid, It is also a precieuse
 oyntment for the Skall./.

- 380 Sometye There springe Certeyn rownde
 knobbes like to wax kernells and some Are
 greater and some smaler, And we call
 them in englishe wennes or scrophules
 And some of the knobbes ar hard and some
 are softe and some be moveble and some
 unmoveble, Those that are softe woulde
 be opened with a lancet and the matter
 thrusten owt with the finger / And thow
 shalt fynd a fylme therin *which* thow
 390 shall draw out and if thow cannot draw it
 furthe Then fill the hole with lynnet wet in the
 white of an egge and a clothe spread aboue
 to bynd it down And on the second daye
 Vndo yt and sprede therin powder of affodill
 and it will frett the philme away and the
 powder is thus maide, Take of the Iuice
 of affodill v vnces vnquenshid lyme / in the
 Iuice and then the powder of orpyment
 and stere them altogether well and when
 400 they are well mengid put it in the sone
 to dry vnto it be all well nere drye powder
 then make thereof litle rounde flat pellets
 eche one the brede of a penny or ij pennyes
 and the thicknes of iiij groats of silver
 then put them in the sonne to they be well
 dried This powder is precieuse for alle
 manner of Cankers and mormalls and to
 fret away all manner of dead fleshe and
 especially filmes of wennes wherfor
 410 strew of this foresaide powder in the
 foresayd wounde And when the wounde
 is waxed bolned then the filme is fre-

f. 40v

388 thow] *rep.* thow

377 medcyn] HB. *ext. marg.* Skall 390 it] HA. *bot. marg.* furthe

tid away wherfore afterward to drye
 vp the wound thou shalt take lynet
 wett in the white of an egge and
 lay in the wound and abouen a litle
 dowble clowte well wet in the yolke
 And thus thou shalt dight it vnto it
 send furthe white matter and hele
 420 it vp with trete And if it so bee ther
 be a littill hard wenne to the quantite
 Of a crabbe and sittithe fast and will not
 remove from one place to an other, then cut vp
 the wen hard by the pan, levinge no fleshe
 on the pane where the wen satt, then strew
 vpon the same place *pulverem rubenē* euerye
 daye twice vnto it haue restored fare fleshe
 aboue, then heale it vp. But if the wenn
 be great to the quantity of a littil costard and
 430 sittith fast to the pan and will not move
 to and fro, then I giue the counsell not to
 meddle therwith for if thou cut yt or laye
 any corrycive therto the patient shalbe in
 ioperdy of his life And if so be that ether
 of thes foresayd wens will move frome
 one place to an other then shalt thou first
 cut the vttermost skyne on crose wise and
 the hole gobbet that thou fyndest therin
 drawe yt furthe hole and after take *pulvis*
 440 *affodile* and temp it with a litle hony and
 lay it vpon lynet and fill the hole therwith
 and dight it so euery day twice vnto it be
 hole

f. 41r

FOR Wateringe eye Take powder of *olibanum*
 and mastick and make it in manner of thik
 butter with the white of an egge and
 sprede it vpon a linnen clothe in maner
 of a playster and then lay it to the
 temples and let it rest to the space of
 450 iiij dayes then take powder of *olibanum*

421 quantitey] HA. *bot. marg.* of 450 *olibanum*] HA. *bot. marg.* and

And aloes epatic of either like muche menge it
with oyle of violet and a litle white wyne in
 manner of an ointement *with* gryndyng vpon
 a moller stone and take thereof the bignes of
 a pease and put on the corners of the eyne
 when the patient goethe to his bed

IF teyn yeke or bren take j. vnce of litarge gould
 olibanum, aloes epatic of ether the iiijth parte of an
 vnce grynd alle those vpon a moler stone *with*
 the oyl of violet and Iuice of celodyne and
 put therof, in the eyn, And if he haue great
 bytinge and akinge in the eyen then take the
 croppes of brymbell and of wormwood and
 stamp them and wringe the Iuce forthe and
 meng ther*with* as muche water of roses and
 grynd *with* this licour powder of aloes and
 mastic in manner of an oyntment *with* the
which annoynt the eyen when the patient
 goethe to bed

TO FRETE awaye the webb in the eye take two
 handfulls of celodonye stamp it and take the
 Iuice thereof and put therto as muche /metes\ oyle and
 let them rest together ix dayes Then put it
 on the fier and powder of vertgrece mayde
 to suttill powder vnto the quantity of *half a*
quarte of an vnce and make theim boyle together
 a litle while vnto it haue a passing grene
 color then take it fro the fyer and shrew theron
 j *quarter* of *pound* of aloes epatik and when it is
 colde put it into a glasthe *which* is a *precious*e
 Medicine for Webbe of eyen And when thowe shalte
 worke ther*with* take a fether and pill all awaye
 savinge the toppe of the fether and dip it in the
 foresayd medcyne and ther*with* sheyke throughe
 the eye that hathe the webb

FOR bloode in the eyn thrughe a stroke or any
 suche thinge or great swellinge outward

480 precious] HA. bot. marg. medcyne

Take fyer new waxe and chauf it at the
 fyer to it be softe and menge ther^{with} suddill
 490 powder of new commyn And then sprede it
 in manner of a plaister and laye it therto
 warme and so euery day dight it twise, or els
 /take\ verryne and woormewood stampe them wring
 furthe the Iuice and meng it ^{with} water of
 roses and with a fether put of this licour in thye
 eye

THEIR IS a Superfluity of fleshe risinge some-
 tyme in thy nose and semithe as it were polipus
 and it is not for it grewithe in the large
 500 holes of the nose and somewhiles so longe
 that it hangithe down on the lipp The cure
 therof is this, put an Instrument of yron
 into the nose thirle that is somewhat
 croked at the one end and take hede that
 the croke of the yron touche the further parte of
 the superfluitye then take a lancet in the other
 hand and cut it so nere the roote as thou
 can and draw it furthe ^{with} the croked yron
 Then shalt thou make a great shorte tente
 510 And anoynt it aboute ^{with} hony and after strewe
 thervpon small powder of Alome calcioned
 and thus dight it ij dayes and after dight
 it ^{with} vnguentum viride to it be hole Vng-
 uentum viride shall thus be mayde Take
 Celidonye allia the rootes and the leaves of centin
 gally and of wilde lovage of eche an handfull
 stampe thes hearbes well and menge them
^{with} a pound of shepe talow and a pynte
 of meate oyle and so let them rest x or xij
 520 dayes, after put it on the fyer and maik
 it to boyle a while after straine it throughe
 a bagge and put it on the fier agayne and
 if it be somer put therto iij vnce waxe and in

f. 42v

488 fyer] *emend.* fyer

509 tente] HA. *bot. marg.* and
 vnguentum | viride

513 it^l] HA. *ext. marg.* To make

wynter but ij vnce. and when it is molten
 put therto olibanum, mastic and vertgrece
 of eche *half an vnce* and stere alle well together
 Then take it fro the fier and strewe of aloes
 epatik and stere altogether and then let it
 cole and kepe it to thye vse This vnguentum
 530 viridem is a precieuse salve bothe to olde sores
 and wounds and also to new for it engendrithe
 goode fleshe and fretithe awaye evel fleshe

POLIPUS grewithe in the marrow place of þe
 nose thrille and afterwerd the grether that
 it waxithe it fallithe downward more and
 more because of his apreise and also by driving
 of the wynde and it smithe as it were a
 gobbet of fleshe hingening in the nose thirle
 and some, polip is curable and some is not
 540 The tokens of polipus that is curable be thees,
 the gobbet of fleshe is blak and alle the nose is
 wonder hard and blakishe of colour and the
 Gobbett fallithe not downe but remanithe
 aboue in the straite place of the nose
 The tokens of polipus that is curable
 are those, The nose is somewhat softe
 and is as any hole nose and the gobbet
 is fallenn downe the *which* disease may be
 holpe *with* cuttinge in this manner First shaue
 550 a payer of sotill small tounge and put
 them into the nose thirlls
 and fasten them vpon the gobbet and thowe
 shalt draw it furthe quickly then take
 the yolke of an egge and menge therwith
 a littill Flowre of wheate and make a
 greate shorte tente wett *with* the same and
 put in the nose do so euery daye to it be
 hole And if ther leave any gobbett of.
 in the hole then take a smalle holowe pipe
 560 of yron and put it in the nose thirll

f. 43r

551 them] *rep.* and put them

539 not] HA. *bot. marg.* The

and therin put a litill yron rede hote
 and burn the pece away that is leste
 And if the pacient be tender and may
 not suffer it then take *vnguentum rupto-*
rium and put therin *which* is thus maide
 Take ij partes of blak sope and one parte of
 vnquenshid lyme make a greate tente
 and annoynte the ein therwith and put in-
 to the nose thirll and let it be in the
 space of six howres then take it furthe
 And put therin a litill lynet wet in the
 white of an egge and dight afterwards to
 it be hole as is abouesayde /

570

f. 43v

IT HAPPENS diuers tymes that in the nose thirlls
 or in the lippes or in the gumes a Canker to be
 and therfore it is fretid aboute and the
 place aboute waxithe red and somewhat
 shrinkithe the skyne and fretithe inwarde
 and if so be the fleshe be harde aboute
 the Canker and the Canker therwith is blak
 then meddle not therwith for it is vncura-
 ble And if the place aboute the Canker be
 somewhat softe and the Canker not muche
 spred abroad then shalt thow hele it thus
 Take a rasure and cutt all rounde aboute therwith
 vnto thow comme to the cleane fleshe Then take an
 yron read hote and burne it in the same place
 and after lay therto the yolke of an egge spredd
 vpon a Clothe and that shall withdraw the vertew
 of the fyre oute of the sore. And if the canker
 may not be cut as if yt be in the nose thirlls
 Then put therto a tent wet in *vnguentum egipticum*
 euery day to yt be clene and it is thus mayde
 Take x spoonefull of hony and ij spoonefull of
 vineger boyle it on the fier to yt waxe thik
 then strew thervpon one quarter of an vnce of

580

590

566 of²] HA. *ext. marg.* To macke | *vnguentum ruptorium* 570 furthe]
 HA. *bot. marg.* and 592 Then] HA. *ext. marg.* *vnguentum* | *ægipticum*

wax rede as blode / then set it fro the fier
 and kepe it in a vessell for thye vse and
 when the canker is clene freated awaye then
 600 hele it vp *with* this medcyne Take iij partes
 Of yolkes of egges and one parte of honye meng
 them *with* the flowre of wheate and so heale it vp
with this medcyne And if the canker be in the
 palate of the mowthe then burne it *with* a
 hote yron shapen to the quantitie of the canker
 And if the Canker be in the gumes then weshe
 them well first *with* vineger and alome, resolvid
 therin thre dayes together And after rub the
 610 gumes *with* this licour Take vineger And wyne
 of either like muche and boile therin the leaves
 of moleyn And of woodbyne after streyn it
 throughe a clothe and put powder of ginder
 and of pelleter and of rose leaves and
 orygane and of the rynde of the pomegarnet
 and date stones and of Synamon of euery like
 muche and meng thes alltogether and make
 therof a powder which powder meng *with* the
 foresayde licour and ther*with* euery day annoynt
 the gumes vnto yt be hole /
 620 SOMETYME The heedes of the cheke bones are
 out of their ionte *which* is knowne by thes tokens
 the nether tethe may not ioine *with* the over
 closelye as they shoulde do and thus it is to
 be holpen Take the patient by the lawes and
 bear the heade of the cheke bones outwards and
 lift vp the patient ther*with* frome the earthe and
 if it be owte of the ionte but of the one syde
 then shalt thou paise frome the earthe on that
 one syde bering thy plome hand on the other
 630 syde and when the cheke bone is in the ionte annoint

f. 44r

597 set] *cancel.* of 613 of¹] *rep.* and of

600 partes] HA. *bot. marg.* of 602 vp] HB. *ext. marg.* emplastrum | sanacticum

it *with* dewte and make the patient vse sowpinge
meates and charge him that he put not over
greate morsells in his mowthe by the space of viij
or x daies after

f. 44v

SOMETYME in the cheke bone is a fistula and
the hole therof is straite, Then annoynte the tente
with vnguentum egiptiacum. when the hole is enlarged
then annoint the tent *with* the white of an egge
vnto the brenninge therof be put awaye and after /heale it
vp *with* vnguentum\

640

And if anythinge of the cheke bone be cankered
then paire awaye so muche as is cankered
And if the teithe strike in the place where
the bone is cankered, then pull them
furthe and pare away all the cankered
place of the bone and after heale it *with* unguentum
viride

FOR the tothe ache if it be caused of a Rotten
tothe Then take a small yron croked at the end
and make yt rede hote in the fier
and make the patient to gape and set the yron
in the mydds of the holowe toothe Or
els take greate salte and put yt in a cuppe
sherde ouer the fier to it before then put therof in
a little lynnyn Clothe and bynd it fast *with* a threde
and make the patient ley it vpon his aking tothe
And when it is coulde take it away and laye
freshe hote salte therto and Ive so v or vj
tymes vntill the akinge be gone and know this
for a good medcyn

650

660

THERE BE SOME WHYTES KNURRES AND
knotts in the visage as yt were messebrye
which is called Sawcefleame and is curid in

f. 45r

650 fier] *rep.* in the fier **652** the²] *rep.* of the **657** laye] *cancel.* it

631 sowpinge] HB. *bot. marg.* take booldlye the thombe and put yt even
vnder the patient chin And the fingers on the same hande on his
browes and cast hard *with* the thoombe and will the patient to streane
himself to knashe his teeth together And shall perceave yt
660 medcyn] HA. *bot. marg.* Ther

this manner Take vj vn^{ces} of honye and one
 vn^{ce} of the iuce of spurge and put therto
 this powder. Take tartur and powder of
 musterd sede of either iiij peny weight. powder
 of pepper, allome calcionid of eche ij penye
 weight, borace viij peny weight powder of
 670 olibanum ij penye weight powder of cotil-
 bon *half an vn^{ce}*, Grynd all those vpon a moler
 stone together *with* the foresaid honye in manner of
 an oyntment And *with* a Rasure cut eche one
 cros wise and annoint eche one of thees
with the foresaide oyntment euery daye ij or
 iij tymes vnto the visage be playne, then
 take a cloute and depe in the white of an
 egge and smere all thy visage euery
 day ther*with* twice vnto it be hole And
 680 if so be the patient home but small blisters
 in the visage or pimples whether so euer they
 be then annoint the visage *with* vnguentum
 allum euery day to it be hole *which* is made in
 in this manner Take olibannum, mastyk, of eche
 half an vn^{ce} litarge of lede j vn^{ce} ceruse
 j vn^{ce} stampe all thes to sotill powder
 and minge them *with* meate oyle gryndinge
 vpon a marble stone puttinge therto a
 little vineger at diuers tymes and grynde yt
 690 Very small vnto ther be no great thinge leste
 therin This ointment is goodd and precious for
 sawce fleme and to drie vpp all manner of
 moist Scabbes and to /doe\ away all manner pimp-
 les and bledders risinge in any place of the
 bodye

OFT TYMES morfew and other superfluities
 risithe in the bodye and specially in the vi-
 sage For the *which* morfew. Take wheate and
 lay it vpon a hote place of yron And when

f. 45v

674 thees] *exp. with* 678 visage] *cancel. be hole* 692 to] *cancel. doe*

683 in] HA. *ext. marg.* To mayke | vnguentum album 689 yt] HA. *bot. marg. verie*

700 the wheat is strewid ther vpon then lay an
 other hote plate aboue and presse yt downe
 fast through *which* pressinge ther shall *comme* oute
 oyle *which* kepe to thie vse. for it is wondeurfull
 precieuse for all manner of morfewes in the
 Visage or any other place of the body. And
 if so be ther be tetures or ringwoormes in
 the visage Take tarture of white wyne and
 letarge of lede and the shells and foote of a
 Chymney and pelliter of spayen of either like
 710 muche maide into sotill powder and grynd
 them on a moler stone *with* mete oyle in manner
 of an oyntment and kepe it to thye vse *with* the
which annoynt all manner of tetures and ring-
 woormes *iiij*^{or} dayes together and it shall
 dryve awaye And all a weke afterward
 weshe thy visage euery day *with* warme water
 in *which* brome is boylid in.

EXPLICIT LIBER
 PRIMUS

720 OFF WOUNDES THAT ARE MAIDE IN THE
 with Swerde or suche thinge Firste take hede
 whether any broken bone or other thinge ought to
 be taken furthe of the wounde, if ther be, then
 draw it furthe and incontinently sew it vp and
 strew ther pulvis rubens and heale yt vp as is
 said in the first booke. And if the wounde
 blede fast thow may draw nothinge furthe at
 that tyme But sew vp the wounde half
 and leue thother half open and strew theron
 730 pulvis rubens and bynde Clowte fast therto
 that it blede no more And vndo it not to þe
 thirde daye Then draw furth that wiche
 ought to be drawen furthe at the open place
 of the wounde And after hele it as is
 abouesaide of other wounds

f. 46r

702 through] *emend.* thowhe

705 Visage] HC. *bot. marg.* For a kingworme | or tetter 717 in²] HA.
bot. marg. oft

IF THE Neck be perced through bothe sydes
 with an arrowe or darte or any suche thinge
 or weapon and also yt stickithe fast therin
 then thow ought first to pull it furthe and
 740 put into either syde a tente of larde
 and let it rest so thre dayes or thow open it
 Then shall thow finde fair matter in the sores
 and after tent the holes on eyther syde and
 annoint them with *vnguentum viride* and hele it vp
 as is seide of other wounds And now note
 well that the deper the wound it the
 longer ought yt to be or yt be closyd vp
 And therefore kepe it with tentinge and not
 with muche healinge salve And therfor is thy
 750 tente in suche to be annointid with *vnguentum*
viride

IF THERE be a wounde in the hatterell of þe
 hede in suche manner that vena organica is cut
 therwith then first sewe the mowthes of the veines
 together with a small nelde and as thowe shalt
 saw the vnder syde haue alway a threde
 vnder the point of thy nelde to lift it vp ther-
 with to haue thy nelde againe at any stiche
 And when all the veine is sewid round
 760 about, then strew thervpon *pulvis rubens* and
 vpon that lay lynet wett in the white of an egg
 and fill the wounde therwith And let it so rest
 ij daies and then thow shalt finde the sore
 giue fair matter, then euery day twise strewe
 thervpon *pulvis rubens* and sprede *vnguentum*
fustum vpon lynet and fill the wound therwith. Thus
 dight yt to yt be hoole and beware thowe vse no
 other oyntment ther to but *vnguentum fustum* for
 then thowe shalbe cause of the mans deathe For
 770 organica vena is a great veyn and hath a very
 thine skyne and nothings fleshlie and so it is
 tender and harde to consounde therefore if thy
 salve be ouer muche fretinge or to muche draw-

f. 46v

739 and] *rep.* and

inge or so muche heate in woorkinge then
 shall yt vndo the sewinge wher throughe the
 veine shall fall in bleedinge againe and so shall
 folow dethe Therefore in tender place or *perlous*
 hurte I counsell the to vse gentle salves all-
 waies And if the hatrell be hurted but vena
 organica is not perced then take lynet wett in
 780 the white of an egge and fill the wounde therwith
 and let yt rest so ij dayes After vndo yt
 And after heale yt vp with vnguentum fustum And
 if the hattrell behind be smitten through with an arrowe
 darte or qnarell so that vena organica is perced ther-
 with and that thowe shall knowe by the great bleding
 first drawe owt the wepon then sew all the wound
 together After strew thervpon pulvis rubens and
 bynd fast the wounde that it bleede no more or
 790 laye this plaister thereto to staunche bloode
 Taik powder of frankensence seven penie
 woorth the powder of aloes caballyme. j vnce and
 the peny weight of the hare of a heire and
 temper all thes thicke together with the white
 of an egge and ley to the foresaid place to
 cutting of veines or arteries and it shall.
 stanche the blood anon / or whete chewid in
 thi mowth / and laid on plaister wise therto
 doth the same And on the third day hooke
 800 the foresaid wounde and then shalt thou finde
 therin fair matter wherfore hele it vp with
 vnguentum fustum as I haue said before.

f. 47r

IF THE Throte be wounded and the wesand or throte
 bole *partid* in what manner so euer it be medle
 not therwith for it is deathe And if the skyne
 onely be hurted sew it vp and strew thervpon
 pulvis Rubens and strew it vp as is said
 of other wounds.

RYGHT as ther is divers humours in mans

793 a] *cancel.* n

782 yt²] HA. *bot. marg.* and 790 bloode] HA. *ext. marg.* To staunche |
 bloode

810 body so ther /be\ divers genders of apostumes
 That is to say iiij one of blode another of
 Coler but then be ij manner of colers that
 is to say naturall and inaturall and the
 iiij^t of flewme And the appostume that
 is causid of bloode is redishe in colour
 and great hete aking and smelling ther-
with The appostome causid of flewme
 hath whitnes in colour and suche softnes
 ther*with* that if thow thirst the finger
 820 thervpon it makithe a pitt as it were
 a Dropsey And the appostome /which is\ caused
 of Colera Rubea *which* is naturall
 coler yt hath a verie great heade *within*
 it and readnes of Coler somewhat mergid
with yealownes And the appostume of
 mallamollie *which* is coller inaturall. is
 wonder hard in fealing and it is blackishe
 of coler. The cure of all is in this *maner*
 Take Rew comin Swins greace and flowr
 830 of wheat and onyons Stampe all thes
 sotelie together in a morter and
 set yt on the fier putting therto swete
 wine and seth yt to yt be plaister
 thick. then ley therof to the appostume *eueri*
 day twise and so continew to yt fall to
 matter And when the appostume is ripe
 cut it in lenththe with a launcet. and then
 Put into the hole one of thi fingers For that
 shall maik the matter to *comme* out muche
 840 better and *eueri* daie tent it twies *with*
vnguentum viride

f. 47v

f. 48r

THER is felones and carbunkles *which* are
 causid of a wild fervent bloodde and they
 burne and ake wonderfully *which* disease
 thow may help in this manner. First thow
 must debate the heat of them in this manner

831 together] *rep.* together

810 apostumes] HA. *bot. marg.* Thatt 837 then] HA. *bot. marg.* put

Take one *parte* of oyle of Roses and ij parts
of ioice of morrell and meng them together
and depe a dowble clowt in it and lay the
850 clowte often vpon the disease and continew
thus woorking to all the heat and aking
be gone. Then heale yt vp *with* this medcine
Take the yolke of an egg and put ther to
the sixt parte of salt and sprede therof
vpon a clothe and ley it vpon the felon
For yt shall heale all felons after the
heat is put awaie And yt is sayd if
comferie be bruised betwene ij stones.
Throughe miracle of god it shall heale
860 all manner of felons if it be Put ther-
vpon and that *within* the space of a day.

ALSO yt happens many times to be so greate
hete in an impostume that it burnithe and
skaldith all the place about yt, And if a
cok or an hene were cloven And layd ther-
to at even and at morne thow shallt.
find neuer a Dele fleshe theron bicause
of the great hete that comith
furthe therof. The cure of it is this
870 even in like manner as I haue saide
of felons and carbunkles./

FOR an apostume causid of fleme make this
plaister Taike the tenderine rotes of þe
hok stampid and sodene in water to the
quantitie of viij vnces and put therto j *pound*
of Swynes grece and half a pynt of
meat oyle, Sethe all thes well
together vpon the fier, After strayn
it through a cloth and put therto
880 litarg of silver iij *quarters* of a pound
sottelie ground to powder and maike
them all boyle on the fier together *with*
continuall stering to it be plaister thik

f. 48v

867 bicause] *rep.* bicause

863 and] HA. *bot. marg.* skaldith

as is *diaculum*. Then take it frome the
 fier and let yt Coole and sprede it
 on a cloth and ley it to the apostume
 Also *Diaculum* is good for the some
 diseases *which* is this maid Taike oile
 meate oyle iij pints and a half. of
 890 litarge of silver iij *pounds* the Retes of
 merthe, malowe, Fennegreke, lyme sede
 Off eche j *pound* let the lyne sede the fennegreke *and* f. 49r
 the roottes be brisid and let them Rest together
 iij daies putting therto five pints of water
 and on the fift daie put it on the fyer and
 make to half the licour be waisted then powre
 it into a thick canvas bagg and straine it
 throughe And that *which* is stranid throughe is
 callyd instillage Then meng with yt the fore-
 900 said oyle and set it againe on the fyer
 and make yt to boyle strewing in all the
 powder of litarge ouer stering yt vnto the
 dropping be hard when yt is coulde
 This Diaquilon profithe muche to all
 manner swelling of hande and fete.
 and for aking of the bowles and the ballocks
 and for cutting of sinowes and for
 sinowes that are shronken and to soften
 and Ripen all manner of Cold apostemes
 910 if yt be spred vpon a lynning clothe
 and laid therto and for veins that
 are cut and it drieth most humours
 of Roten wounds and helpithe them
 And when the said aposteme is rypyd
 open it *with* a launcett and tent yt
 vnguentum viride and so hele it vp as is
 said before. Or in this manner may thowe
 maike a hard apostume fall to matter
 Taike the roottes of hock and put them

905 manner] *cancel.* swelling

887 Also] HA. *ext. marg.* To maike | *diaculum* 891 sede] HA. *bot.*
marg. of 899 fore-] HA. *ext. marg.* instillage 919 them] HA. *ext.*
marg. in

920 In Water *with* leaves of bramca vrcina And f. 49v
 after straine it and cast the water away
 and menge *with* the said Rootes and leaves
 Swines grece butter and honye and sowre
 donghe boyle those together to yt waxe
 somewhat thick and euery daie twice
 ley of this medcyne hote to the aposteme
 Also another Ripinge plaister Take the
 Rotes of lillie and stepe them in water
 then powre owt the water and *with* the
 930 Rote temper swines greace and put therto
 rostid onyons and Calwe leues sodden
 and powder of lyne sede knede all thes
 together and lay it vpon all manner of cold
 apopostemes vnto they fall to rypinge
 then open them and them as is boforesaid

HERE I thinke to speake of *certein* apostemes
which grow vnder the arme hooles and in the
 share as it were pestilenc sores or bothes
 and those are vncurable. *which* sucertith
 940 and akithe and burnithh so muche that
 the patient may not slepe wherthroughe
 the pacient hath a sharpe fever And of
 this apposteme I counsell the not to
 intermeddle. Neuertheles if the patient
 fele not great diseas ther*with* then shalt
 lay some of the saide riping plasters therto
 To maike it ripe Then open yt and if f. 50r
 ther be any harde knurres therin frete them awai
 with powder of caperons and hony together
 950 and after heale it vp with vnguentum viride

CANKER sometyme is bredd throughe vice
 of inwardlie thinges and sometyme of owtwarde
 things as of a wound eveill healid for
 if it pas five monethe on yt be hole.
 Then ought it not to be callyd a wound

926 the] *cancel.* cast

930 Rote] HA. *ext. marg.* Emplastrum maturatum 946 therto] HA.
ext. marg. To

but a canker or a fistula, and some
 canker is of long tyme and some of short.
 and some in smowe placs and amonge
 arteries and some in fleshie plac
 960 wherefore some canker is to be healid
 in one manner and some in an other
 For whie a canker in smow place ought
 not to be healid with cauteriſing or els
 with cutting And they *which* haue
 cankers hidd it is better for them not
 to be healid For thes are the words of

[LATIN]

And for ther is aboute the neck and þe
 hatterell great habundance of sinowes
 970 and veins therfore it is to be ware to
 marke any burninge or cutting for any
 Canker being ther but if yt haue not bene
 ther over other half yere then heale yt with
 this oyntment Take powder of drie rootes
 langdebeffe iiij vnces / of powder of the roote
 of Clate v vnces / of powder of the roote of
 Celodyne (*id est celidony*) j vnce / powder of
 ginger j vnce / of quicksilver ij vnces / waxe iiij
 vnces in somer and ij in winter of Rosyn as much
 980 as sufficithe Swines grece vij vnces
 First melt thy Swyns grece thi waxe and
 Rosyn together and set it fro the fier
 then cast in all the said powder and stere
 yt well together vnto yt be almost cold
 and kepe yt to thy vse and ley it to the
 kanker And if this oyntment will not
 heale the kanker then strew theron a
 powder *which* is good to fret awaie cankers
 Being in smow placs and maid in thus
 990 manner Take white elebore rootes and
 the rootes of astrologia rotunda of ether
 like mucche and stamp them to powder

f. 50v

963 els] *cancel.* with 980 grece] *cancel.* as 982 it] *cancel.* for

971 any?] HA. *bot. marg.* Canker

and strew vpon the canker when is nede
and when the canker is fret awaie therewith
then ley thervpon lynet wet in the white
of an egge and oyle of Roses together
and when the ache and priking is
debatid heale it vp with vnguentum viride
and of the canker in fleshlie placis I shall
speake hereafter.

1000

SCROPHULES do springe in the neck and in
the throte and in the liskes and glandules also
and for to knowe glandules and Scrophules
Take the leues of heyhowe and stamp them
small and boyle them with meate oyle and
euery daie twice make a plaister thereof
and ley to the scrophules or glandules hote
at euery tyme And if they be glandules
they shall wax lesser and afterwarde

f. 51r

1010

continew this medcyne and they shall wax
reade and after fall to matter and when
the matter of them waxith Ripe within then
cut eche one of them with a lancett and
after put in thy finger and draw oute the
Releve of the matter that thow

1020

findes therin. And if ther abyde anye
harde matter therin Then strew therin
pulvis affodillarum, which is written in
the first booke vnto tyme yt haue freatid
furth all the hardnes. And if it be a child
within xij yeares age and haue Scrophules
or glandiles thow shalt heale him with this
oyle Take the Roote of molleyne and Rootes
of Radishe ij vnces weight and as muche
weight of meate oyle Seithe the rootes in
the oyle to the third parte of the oyle be
waistid Then streyne yt throughe a
clothe and put of this oyle euery daye
warme ones into the sonne eer, on whiche
syde the waxe kyrnells bredithe and

1030

1013 cut] *cancel.* yt **1015** Releve] *cancel.* with thy finger

yf shall maike /the parties of\ the same care to swell
 And afterwards matter shall come furthe
 therof And then trust it fullye the grandules
 and the scrophules shall waist away. And
 if they do not then giue him *euery* daye this
 drinke fasting the quantitie of foure
 sponefull at ones, Take the rootes of whit
 helebour and blak elebore and the Rootes of
 Astrologia rotunda the Rootes of Radishe
 1040 and the leaves of Lawrell of eche like
 muche and put all thes in good reade
 wyne, After streine yt and put therto
 honye to make yt delycate / And in the
 space of xv. daies *with* vsinge of this
 drinke the child shalbe hole, And
 the Scrophule is soft in touching And
 the Glandule is harde./

f. 51v

HERE I SHALL shew the how and in what
 manner thow shall haue away scrophules
 1050 First take eche of them in thy one hand
 and hould yt fast and cut the over skyne
 aboue *with* the other hand and then take
 yt owt *with* the hull it lyeth in / And so
 serve eche of them after an other / And
 if that any of them blede fast after
 Then take lynet wett in the white of an
 egge and laye yt into the hole, and remove
 yt not to the second daye And if ther
 leave any of the scrophule in the hole, then
 1060 strew theron pulvis affodilie and whet it is
 clene then heale it vp *with vnguentum viride*

A FISTULE is an apposteme whose mowthe
 is straite *withoute* and the grounde of yt *within*
 is large *which* fystule is causid and gendrid
 somewhiles of Inwardlie thinges and some-
 whiles of owtwardly thinges / Off Inwardly
 thinges as of corrupt humours, of outwardlie
 thinges as of a wound that was evill healyd

f. 52r

1031 swell] HA. *bot. marg.* and 1061 viride] HA. *bot. marg.* A

And somme fistules are of long tyme and
 1070 somme of shorte tyme And some fistules is in
 plac full of Sinowes and arteries and
 somme in fleshlye plac / And somme fistule
 corruptith the flesh and some the bone and
 somme the synowes. And therfore eche
 one haue their proper tokens wherby
 they may be knowen / For the fistule that
 corruptithe the fleshe onely then yt sendithe
 oute white matter, And if yt haue corrup-
 tid the bone then the matter is like water
 1080 that fleshe was washid in And if yt haue
 corrupt the sinowes Then comithe blacke
 matter furthe To *which* diuersitie of fistules
 do belong diuers cures, The fistules that is
 aboue the neck where it is full of veines
 and arteries, we dar maike no cuttinge
 therfore ne burninge, But this shall then
 woorke if the mowthe of the fistule be,
 straite, then maike it larger with a bigge
 tent maid in honye and coperows ground
 1090 together, And when the mouthe is large
 ynoughe then annointe thy tent and withe
vnguentum ruptorium and so continewe to the
 fistule be stayne and after heale yt vp with
Vnguentum viride, And if the patiente be
 Delicate and may not suffer *vnguentum ruptorium*
 Then heale it vpp with this ointment *which* is
 precieuse in cure of a fistula / Take blacke
 rounde pepper, pellytour of Spaine, Alome
 orpiment, mustarde sede, white elabour rootes
 1100 and blake galles vertgrece of eche like
 muche, of vnquenched lyme as muche as is
 of all make all the foresaid thinges to sottell
 powder and grind them vpon a moler stone.
 with blak sirope in manner of an oyntment
 And after forme therof in manner of a tent
 and put yt into the hole of the fistule, And

f. 52v

1093 with] HA. *bot. marg.* *Vnguentum* 1098 rounde] HB. *ext. marg.*
vnguentum pro | fistula

annone after it will melt in the hole and
 sleythe all corruption that is therin, And
 within the space of ij howres take the yolk
 1110 of an egge and wete lynet therin and put it
 into the hole to tyme the smarting and the
 aking be gone / Then heale yt vp *with* vnguent
 viride / And if the fistule be in smowe
 place *which* is not full of Arteries / and
 the mowthe therof is straite and the ground
 is not depe then *enlarge* the hole, and when
 thow hast so done searche the bottome whether yt
 be clene or no / And if yt be not clene then
 dight fyve daies together *with* vnguentum
 1120 egiptiacum And after heale yt vp withe
 vnguentum viride / And if the fistule haue cor-
 rupt the bone and also the ground therof is
 depe First enlarge the hole and after
 maike this weshing therfore, Take a pynte
 of strong tanwoose and put therto viij spone-
 full of honie and a *quarterone* of Alome smalle beaten
 And j vnce of Black sope and boyle all thes
 together the space of half an quarter of an
 1130 howre, / Straine them throughe a clothe
 and eury daie squirt the fistule full with
 this licour and after tent yt with vnguentum
 mundificatium / And so continew *with* weshing
 and tenting vnto ther *comme* furthe of the
 fistule feir white matter, then weshe yt no
 more but tent yt with vnguentum mundificatium
 vnto yt be hole, And if ther be any great
 burning about the fistule then annoint it
 with popilion *which* is thus maid, Take the
 buddes of populer tree j *pound* and a *half* of the
 1140 leaves of papie / the leaves of mandragg
 croppes of brymbull the leaves of hennebell
 and of morell and of stewsome of lettuce
 of sengrue of water clate / violet / pennywoort
 of eche one of thes a quarter of a pownde

f. 53r

1126 beaten] HA. *ext. marg.* and 1138 the] HA. *ext. marg.* To mayke |
 poppylyon



of freshe swines grece iij *pounds*. First thow shalt
 stampe the burianes of the popler / and knede them
 with swines grece and make in manner of great
 roots, and put them in a dark hows in an erthen
 pott and let them rest so to thow may gett thye
 1150 other herbes, and when thow, hast all thy other
 herbes stampe them breake thy roots and meng
 all together and put all in the pott and let it
 Rest by the space of ix daies. Then put them all
 vpon the fier casting therto half a pynte of wyne
 and mak yt boyle with a soft fyer to the wyne be
 wastid then straine yt through a canves bagg.
 into a clene vessell and let yt kele / And
 when it is coulede powr furthe the water
 that thow fyndes therin and after kepe yt
 1160 to thy vse / This ointmen is callyd popilion
 bicause yt hath his moste vertew of the
 burions of populer And it is good to debate
 all maner heats of hote apostemes if they be
 annointid about therwith and for all maner of
 hote burning woundes if ther be laid therof
 in the wound and the place therof annoyntid
 therwith all about, And also for the hote burning
 Ague wherfore the patient may not sleepe
 if the temples and the pulses be annointid
 1170 therwith and the soles of his fete and the
 palmes of his handes./

f. 53v

IF THE fistula be depe thow shalt weshe
 it perfectlie in this manner Take an elder tree
 or burtrie pipe and put it on the pipe
 of thy squyrt and aboue that put a button
 so broad as two pence so that ther appear
 skantlie half an ynche of the pipe end of
 thy squirte, And when thow wilt weshe
 thy fistula, thrust the button with thy
 1180 pype hard against the hole of thy fistula
 So that the water being squirtid in do

1179 the] *cancel*. pa

1156 bagg] HA. *bot. marg.* into

not come back again And so thow shalt fill
full and weshe it well

MANY SURGIONS ther be that kurithe
and woorkithe contrarie in healing of the pesti-
lenc boche / wherfore by the grace of god I shall
the plainly the comminge therof And if the
boche be waxen wonder great and is wonder
burning and the patient hathe great Angwishe
1190 therwith, Then shalt thow take this plaister and
lay therto *which* shall debate aking therof
and Ripe it also, Take the Roots of lyllye
and the leaves of violet and put them in
water, the space of one howre, then strayne
them and cast the water away and put them
in a mortar and cast therto a litle butter
and yolkes of Egges and Crommes of white bread
Grend all thes well together to yt be all
Sotell then sprede of this vpon a clothe
1200 and lay it to the boche coulde and so do
troies on the daie And if the boche haue
no great burning nor aking then ripe it
with this plaister Take the rootes of hockes
and pill out the hard sticks that be within them
and after sethe them in water vnto they be
passing tender then take them, and stamp
them small and put to them powder of lyne
sede and fenngreke and sowre donghe and
butter and swynes grece and put all on the
1210 fyer and make them sethe to yt be passing thick
and sprede of this vpon a clothe all hote and lay
yt to the boche and so dight it twies on the daye
to yt be rype And then opene yt with a launcett
And owt the matter therof and after tent
it with vnguentum viride to it be hole And I
let the witt that galbanum nor any suche hote
emplaisters is not good for any pestilence boche

f. 54r

f. 54v

1214 And] *cancel.* not

1183 well] HA. *bot. marg.* many 1192 lyllye] HA. *ext. marg.* *mitigatum*
doloris | ardoris et matu- | ratium 1213 launcett] HA. *bot. marg.* and

for they are hote and burninge. Therfore it
shall rather noye them then proffitt them /

- 1220 IT HAPPENITHE oft tymes the neck bone to be
of ioint wherfore the necke standithe not right
And if the patient be not holpen anone he
shalbe deade, Therfore ley downe the
patient wyde open and the surgeon also
but the patient hede must be betwene
the surgeon leggs in suche manner that the
surgeon feet must stand vpon the patient
shoulder and the surgeon shall take the
patient by bothe the paires drawing the
1230 head to him warde with all his might to bring
yt to his proper place againe, And
when yt is brought into ioint, annointe yt
afterward by the space of ix or x dayes
with dewti *which* is callyd in latten dealtea
And is thus mayd Take the roots of hock
and the stick of them pycked owt and
casten away ij *pounds* of lyne sede fenngreke
of either j *pound* of the rootes of Sqwyllts *half a pound*
First weshe clene the roots and stamp
1240 them with lyne sede and fenngreke and the
rootes of Sqilles also then ley it in viij
pynts of water, iiij^{or} daies together and
On the iiij daie put them on the fyer And
make yt boyle to it wax thik, and after strain
yt throughe a strong canvas bagg all hote.
And take of that *which* is straynd furthe ij *pounds*
and put therto iiij *pounds* of meat oyle and make
them boyle together to ther be nought seen
of the iuce and then put therto a pounce
1250 of waxe and as muche butter as semithe to
suffise and turpentine and galbanum and
gume of the yvie tre, of eche one of thees two
vnces And at the last put powder of colophom
and rosen of eche *half a pound*. And when all
thes are molten together put them frome

f. 55r

1234 with] HB. *ext. marg.* dealtea als | dewtie 1242 and] HA. *bot. marg.* on

the fier And when it is could, put yt
into boxes, and kepe to thy vse This
oyntment is good for all manner of brisers
to annoint them with all and for shrinkinge
1260 of Synowes and all manner hardnes in
the fleshe in a cold cause.

EXPLICIT LIBER
SECUNDUS

WOUNDS WHICHE ARE IN THE OVER
partie of the shoulders blades, if they be maid with
Swoorde or any suche weapone, Thus oughte
thow to help theim Sew the skyn with a nedle
and a threde and leue a litle hole open of the
wounde vnsewid by the *which* the wounde maye
1270 purge furthe his matter and strewe vpon the
sewinge pulvis rubens and put a tent in at þe
hole vnsewid, annoyntid with *vnguentum fustum*
and so dight yt euery daie twies to it be
hole And if the patient were woundid a daie
or ij before thow looke therto, then firste wesh
all the brusid bloode therfro with warme
wyne and then make the sydes of the wounde
to blede with some roughe thinge as with rubbing
of a borage leafe or a leafe de langue de boeff
1280 or seale skyn so that it blede over all the
sydes of the wounde, then sew it in manner as is
aforesaide And if yt be woundid with a
qnarrell or an arrowe then put in the hole
a tent annoyntid with swynes greace vnto þe
sore send furthe matter, and after tent yt
with *vnguentum fustum*.

IF THEIR be a wound on the Chyn of the
neck Firste wete lynet in the white
of an egg and fill the wound therwith and
1290 wete a duble cloute in the yolke therof and
laye ther aboue and let yt rest so to the
second daie And if any bone afterward
ought to be taken furthe take yt oute and
then heale it vp with *vnguentum fustum* like other

f. 55v

woundes./ /

IF THE bone be broken *which* is the chyne of the neck or many manner be hurtid, then make the patient to stand vpon his fete or els sit vpon his tale and make him bow his
 1300 head downward to his brest and searche well if ther be any pece of a broken bone in the wounde and haue yt awaie Then make the patient lift vp his head right and strew vpon the bone pulvis rubens and take hede that þe bones stand even together and in the wound put lynet wetid in the white of an egge and after heale it vp as is said of other woundes And if the Chyne be out of ioint and no wound thervpon then make the patient to
 1310 sitt on his ars and thy self shall stande over him on suche manner that his head be betwene thy thyes and put thy one hand on the over most *parte* of the chyen and so shalt thou set them together as they ought to be and lay thervpon a plaister restric- tive maid with the white of an egg and floure of wheat and powder of bole armoniak and sprede yt vpon a clothe and lay it therto where the bone is broken
 1320 and let it so rest with the said plaister viij daies without removing. And charge þe patient aboue all things that he bowe not his head downe to his breast ward /

AND IF THE shoulder be furthe of ioynthe throughe wounding, Firste cloos the wound cleane and after take the patient by the Same Arme and lift his arme vpright thro-
 1330 ugh *which* lifting it shall bolt into ioynt, and then sew vp the wounde Saving leue a place wher *which* the wound may purge it self, then strew vpon the sewing pulvis

1295 woundes/] HA. *bot. marg.* IF 1315 restric-] HB. *ext. marg.* Restrictyve 1326 the²] HA. *bot. marg.* Same

rubens and then heale it as is aforesaide
 of other woundes And if the shulder be
 furthe of ioynt without any wound then
 bring yt into ioynt againe with lifting of
 the arme as is beforesaid / and when it
 is brought into ioynt, annoint the place with
 dewte in laten callyd dealtea And ther-
 vpon lay a foxe skyne or a black lambes
 euerie daie annointing it to yt be hole
 1340
 IF THE bone of the arme be hurte or
 Synew broken or cut therwith, Firste
 staunche the blood with pulvis rubens strewid
 in the wound and flowre of wheat and þe
 white of an egg temperid together and
 sprede yt vpon a clothe and ley thervpon
 and let yt so lie by the space of ij daies
 Then vndo the plaister and if thow fynd any
 broken pece of a bone haue it awaie and
 1350 hele it vp with *vnguentum fustum* And if the bone
 of the arme be broken without any wound
 then ought thow to set the partes even to-
 gether and lay a plaister restrictyve aboue
 with bole armoniak white of an egg and
 dust of flowre of a mylne And then splett
 the arme and vndo not the spelkes to
 viij daies be past Then vndo yt and take
 awaie the plaister and annoint the arme
 Withe dewte and spelte it againe and so
 1360 euerie daie once vnto viij daies be passid and thenn
 by the grace of god he shalbe hole And if ther be
 any Swelling in the arme or shrinking of any
 Synow Then bathe the arme and weshe if oft
 tymes and to make a fomentacion therto, Take
 leves of malowe and branca vrsina sodden in
 water and when thowe haist bathid yt with this
 fomentacion Then annoint it with dewte or mar-

f. 57r

1341 THE] *cancel.* if

1356 the¹] HB. *ext. marg.* Restrictyve 1358 arme] HA. *bot. marg.* With

vall *which* is thus maide Take the leues of
 wyld Sawge woormewoode water cresses
 1370 camomyle betonie, sage, mugwoort, malows
 herehound, red nettle, lavander, of eche one
 quarter of a pound of bay leues *half a pound* of the
 flowres of brome j *pound*. buter iiij *pounds* stamp these
 herbes and / knede them with the butter and let
 it stand in a cleane vessell viiiij daies...

After streyn them and kepe this oyntment to
 thy vse For it is pretious against all manner
 of stomminge of Senows and shrinking of
 them and for all manner of palseys throughe
 1380 *which* the Synows ar enseblid, and for all
 manner of colde gowtes and all cold diseses
 if they be annointid therwith against the fyer
 in winter or against the sone in sommer./

WHEN a wound is eveill healid and begin-
 nithe to rott then shalt hele it with this trete
 royall *which* is pretious and thus maid Take
 of meat oyle j *pound* shepe talow j *pound* waxe two
 vnces pitche iij vnces Savge garthe mynts *and*
 horse mynts leaves of lavage, Saven, anet
 1390 rew of eche one handfull Firste melt þi
 waxe shepe talowe and oyle together
 and sethe those herbes brysid therin withe
half a pynt of white wyne the space of *half an* howr
 after streyn yt and then put therto thy pitche
 and melt altogether and kepe it to thy vse
 an other for the same diseas, Take wyld savge
 and tame savge ribwoorte centorie pympernell
 mugwoorte and lange de boeff of eche *half a* hand-
 full, stamp all thes small and knede them with
 1400 a pownd of shepe talow and j pinte of meate
 oyle molten together and let them be infuse
 together the space of x daies After put it on
 the fier and do therto *half a* pynt of white wyne
 and maike it boyle the space of *half an* howr, then
 straine yt throughe a thick canvas bagg and

f. 57v

1368 of] HA. *ext. marg.* To mayke | Marvall 1385 trete] HB. *ext. marg.*
 Treat Roiall 1392 withe] HA. *bot. marg.* *half a*

set it on the fyer again and put therto thre
 vn^{ces} of waxe in somer and ij vn^{ces} in winter
 And when the waxe is molten put therto
 powder of Olibanum and mastyck and
 1410 colophom of eche j vn^{ce}, take it fro the fier
 and stere altogether and when the greate
 hete is of yt put therto turbentyne alwaies
 stering yt well and kepe yt to thy vse, For
 it is *precious* and wounderfull goode to
 all manner of Roting of wounds for it clensithe
 and drawithe and it norishithe and engendrith
 good fleshe.

IF prowde fleshe grow in a wounde for the *which*
 many Surgeons do vse alome caltionid or
 1420 powder of coperons, but thou shalt vse
 thes powders that is to saie the powder of armo-
 dactulus Or take vnquenshyd lyme iij vn^{ces}
 of orpiment j vn^{ce}, and put them in a
 pan with water enoughe and boyle them
 well together vnto it begyn to waxe thyck
 then put it in the sone and let it drie to yt
 maie be maid in powder or els vse this
 powder Taike armodactulus /an ownc 4 *drachms* \
 astrologia /an ownc 4 *drachms*. \ rotunda vertgreace
 1430 /an ownc 4 *drachms* \ of eche like muche and
 make yt to gether to powder This powder
 will mightelie but not violentlie fret
 awaie dead fleshe and fleshe Cankers also
 An other powder Take vnquenshid lyme
 and menge it with honie in manner of paste
 and after ley it vpon a hote tyell stone
 and make powder therof for this powder
 freatith awaie dede fleshe and slaythe
 cankers and after drieth vp the wound.

1440 FOR THAT Imposteme *which* is callid herisi-
 pula somtyme coming vpon a wounde
 I shall shew the how to know yt and after

f. 58r

1435 paste] HA. *ext. marg.* Pulvis cor- | rosiius

how to heale yt.

when thow seist a wound cleare and faire
 within and yeldithe faire white matter, and
 small litle white pymples are therin and the
 place of the wound is soft and neshe then shall
 thow know for Certein that the wound is in
 good state and in waie to be hole. But sometime
 1450 thow shalt se woundes home in manner of black
 pymples and the place about the wounde is hard
 and ther comithe therfro somewhiles as it
 were bloode and water mengid together and
 sometime black yellow matter and sometime as it
 were black water of a dyke then shalt thow
 Vnderstand that the wound is appostemid
 with this apposteme callyd herisipula This appo-
 steme must be done with colde medcynes
 Therefore wete lynet in the Iuice of Sengren
 1460 and of stonehore and penywoort and hen-
 bain to the *which* meng the white of an egg
 and oyle of Roses and violet and powder
 of reade Saunders in manner of a plaister
 And if thow may not haue all those Iuices / yet
 take so many as thow maie get And when
 the apposteme is done awaie and the wound
 changid again to his first kynde, then heale
 it lyke as other woundes.

f. 58v

OF RESTORINGE of good fleshe in a wounde
 1470 The causes whre the fleshe is not sonne restorid
 and genderid againe in a wound are thre, one is,
 For if ther be a greate quantitie of fleshe
 stricken awaie it must nede be longer in rest-
 oring, an other is if ther happen to be greate
 holones in the wound
which maie happen bicause the
 patient is disobidient and will not suffer

1443 yt] *cancel*. When thow seist a wound 1475 wound] *cancel*.
which maie happen bicause in the wounde

1455 thow] HA. *bot. marg.* vnder 1460 and^{1]} HB. *ext. marg.*
 Refregidatyve

him to dight it as it ought to be the third
 maie happen by misconyng or ignorance of
 1480 the surgeon *which* things thou shalt helpe in
 this manner Take shepe talow j *pound* colophome
half a pound waxe iiij vnces meate oile *half a* pynt
 powder of olibanum mastick and myrr of
 eche ij vnces First melt thy shepe talow
 waxe and oyle together and set it from
 the fier and strew ther in powder of Oli-
 banum mastick and frankencence and let
 it boile together and kepe yt to thie vse
 This oyntment is *precious* for it engendrithe
 1490 Fleshe annon and fillithe vp the holes in a wounde
 if ther be no dead flesh therin before And if ther
 be then thou must fret it awaie before thowe
 laie to of this Salve

f. 59r

IF A carbunkle come vpon a wounde by thes
 tokens thou shalt know it, the wound shalbe
 blackishe as it were colorid with a coale
 aboue and the wound with the places about
 shall bren as it were any fier throughe *which*
 burninge the patient shall suffer muche
 1500 stronge paine and anone thus shall thowe
 help it Annoint the wound and the plac
 aboute with popeleon euery daie ij or iij vnto
 all the mallice be put awaie and to yt be
 brought in good temper then heale it vp
 as is said of other woundes./

THE brawne of the arme if yt be cut
 endlong or ouerthwart So that neither bone
 nor synewe be hurte Firste take lynet
 wett in the white of an egg and fill
 1510 the wound therwith and open yt not
 or the Second daie then dight it with
 some heling salve to yt be hole.

IF A man be smitten in the boughte of þe arme
 in suche manner that the brawne and the
 Sinowes be Cut in sunder and throughe
 the woundinge the ioint is lows then I
 giue the counsell not to medle therwith

for the wound is deadlie. IF the
 skyn of the elbowe be greatlie cutt
 1520 So that it hing downe Sew it vp and strew
 theron pulvis rubens and heale yt vp as other
 wounds. f. 59v

WHEN the arme is shot throughe with an
 arrow or qarrell First take out the arrow
 and tent it on bothe Sydes with larde
 and after when ther comithe furthe
 faire white matter of the wound the hele
 it vp with vnguentum fustum as is said of other
 wounds.

1530 IF ANY bone of the hand or synew be cut
 First strew theron pulvis rubens and
 ley lynet aboue weted in the white of an
 egg and vndo it not or on the thirde daie
 the shalt thow fynd faire matter in the wou-
 nde and euery daie strew thervpon wher the
 bone is cut pulvis rubens and ley aboue
 the same some healing salve spredde vpon
 lynett And if any of the bones be broken
 then spelt them And if any synew be cut
 1540 in sunder sewe thends together with thyck
 styches of a neld and strew theron pulvis
 rubens and yt shall consounde the synows
 wonderfullie together, And if ther be nether
 vaine nor synew hurtid then sew the lipps
 of the wounde together so that a litle hole
 be left wherat the wound maie purg
 it self, and a tent put in therat and
 after heale it vp as is saide of other
 woundes

1550 IT happenithe many tymes that a lyme is brusid
 throughe a stroke or fall or suche other chance
 wherthroughe it makithe great swellinge
 So that superfluitie of humors fallithe down f. 60r

1526 after] *cancel.* with 1530 cut] *cancel.* oute

1519 cutt] HA. *bot. marg.* So 1549 woundes] HA. *bot. marg.* If

therto Therefore thou shalt ley to yt riping
 plaisters even the same as is said above
 in appostemes / And when the matter is
 rypid then open yt with a lancet and let
 out the matter therof and tent it with
 vnguentum viride euerie daie to yt be hole
 1560 And if that suche swelling fall in the leggs
 then annoint yt with dewte.

IF THE bone of the elbow be furthe of iointe
 in this manner thou shalt helpe it. Take
 that bone of the Elbowe and set it even as
 it ought to be then make one man to holde
 the patient by the hand of the same arme
 that is oute of iointe and an other to hold
 fast at the elbowe and charge them to
 draw out the arme straight thy self hold-
 1570 inge the bone all the time And when þe
 arme is houlden even oute right then
 thrust it to the bone be fullie brought
 into his proper place and then rowle
 a clothe about the elbowe and after spelt
 it by the space of vj or vij daies then
 take awaie the spelts and annoint it
 with dewte

IF THE hand be out of iointe take the
 Patient by the arme with the one hand And the
 1580 hand that is owt of iointe, with thy other hand
 and draw it a litle and lightlie yt shall go
 into the ioint againe; and an other syde
 put a spelt, v or vi daies together and
 after annoint it with a litle dewte, And
 if so be any fingers of thy hand be furthe
 of iointe thou shalt draw them to ioint
 again but not spelt them

f. 60v

OFTIMES yt is sene that members are
 febelid throughe a bone broken or finger
 1590 other thinge which feblenes is knowen in this

1559 hole] HA. *ext. marg.* for swelling | in the leggs 1578 the] HA.
bot. marg. patient

manner, I put case a man had his thighe
 broken or some other member and the
 bones therof be cointid again nevertheles
 the patient hathe mucche aking in the
 same thighe, and also it is lesser then the
 other thighe *which* feblenes thow shalt help
 in this manner First washe the place
 enseblid iij or iiij^{or} tymes on the daie with
 hote water that this herbes are soden
 1600 in / take iij handfull of hock leues two
 handfull of savge leues and two handfull
 of camomyle and cast it into this licour
 one *quarter* of a pound of sewit of metes fete
 and stew all thes well together on þe
 fier after sprede yt vpon a clothe
 and ley to the feble place as hote
 as the seke maie suffer it and let it lye
 the space of one monethe

IF SOMETIME it hapenithe a bone is broken
 1610 and after it is not ioynid together iustlie
 wherthroughe the patient felithe gret aking
 or els maie not sterve the same lyme so well
 as he might haue done before or els the
 lyme is foulie deformid throughe missetting
 therof then shalt thou helpe it thus. yf it
 haue bene so a long tyme then shalt thowe
 make a fomentacion with water wherin a
 great quantitie of hock leues are soden
 and cheken wede and therwith weshe the
 1620 place and after plaister the same place
 with the said herbes all hote and let them
 so lie by the space of ij howres after
 thow take awaie the same plaister and
 smite the edge of thy hand of the same place
 wher it was misioynid and so thow shalt
 vndo it againe then set the parte of the
 bone iustlie together and spelt yt and
 hele it vp as is saide of brekings before

IF THEIR be Canker in the arme *which*
 1630 maie be causid of a wound evill healid

f. 61r

then freat the corrupt matter awaie
 with some ointment or pouder that is
 rehearsid before in eache chapitour of
 Cankers and after heale it vp with *vnguentum*
viride And if ther be a Canker among
 the synowes of the arme then strew therein
 powder of affodill And if the pouder
 will not stey yt I counsell the not to
 meddle therwith for it is *perilous* to strew stronge
 corrosiues amonges senows bicause of fretinge
 them in sonder Wherfore it is better to be vn-
 healid then to meddle therwith And if ther be
 a fistule in the arme and the bone corrupt or the
 fleshe corrupt then haue awaie the corruption
 of the bone or of the fleshe and after heale with
vnguentum viride as is beforesaid of cankers and
 fistules in the first booke./

f. 61v

A RIBBE sometime is bowed inward wherfore
 thow shall set the patient in a bathe or stewe
 and when he hathe sitten ther an howre then
 take turpentyne and annoint thy hand
 therwith and touche the same place ribb is
 bowid ofte tymes with thy hand and draw it
 forwarde and /so\ shalt thow haue it furthe of
 bought within shorte while And then laie
 therto *emplastrum appostolicum* and let it lie
 therto vnto it be hole And if that any ribbe
 be broken in sunder then laie therto *emplaustum*
epirotroceum which is thus maide Take safron
 piche waxe colophoine of euerie iiij vnces turpen-
 tine galbanum armoniake mir olibanum mastyk
 of eche j vnce and a half, Firste take the gabanum
 and the gum armoniake and breke it In small
 peces and ley it in as muche viniger as will
 cover yt a daie and a night and in the
 morninge set it on the fier vnto the viniger
 be almost waistid, then put therto piche
 waxe colophonie and when it is molten take yt

f. 62r

1638 to] HA. *bot. marg.* meddle

awaie frome the fier then put therto turpentyne
 1670 pouder of mastick olibanum and mir, alwaie
 stering it *with* a sklyse And when all the powder
 is castene / and as sone as thow maie gether
 it together wring out the water and k/n\eade
 it at the fier annointing thy hande with oyle de
 baie euermore strewing theron powder of safron
 vnto yt haue drunken vp the weight belonging
 therto as is aboue rehersed This plaister is
 good for healing of brisid bones and to do away
 aking of them and to fasten and ripe all manner
 1680 of colde impostemes and to hete all manner of
 placs that be infrigidate *with* any sicknes

A MAN wounded in the harte or in þe longes
 or liver or mydriff or stomake take not to thy
 cure, And if the harte be wounded black bloode
 will come furthe at the wound with greate
 aboundance and if the longes be woundid then
 shall the bloode be frothie and the breathe
 shalbe changid / IF the mydriff be woundid
 then shall the vse wonderfull great draughts
 1690 in his breathe drawinge and sone after he
 shalbe dead And if the lyver be hurte Then
 it is easie to know by the place for the
 lyver liethe on the ryght syde ij handfull
 large vnder the arme hole. And if the stom-
 ake be hourt then will the meat come furth
 at the wounde All thes wounds I counsell *and*
 charge the not to meddle with all for they
 be deadlie./

THE MILTE is a serviable member to þe body
 1700 *which* happenithe somewhile to be hurtid and if þe
 place be largelie woundid where the mylt
 liethe the milt sometime will come furthe
 Then must thowe get the longes of a shepe or a
 swine all hote and laie them vpon the milte, for
 I let the witt when the milt is furthe, Coulede

f. 62v

1676 belong[ing] HA. *ext. marg.* Emplastrum | calefanium | et
 maturatium 1698 deadlie/] HA. *bot. marg.* The

will cause it so to swell that it will not
 in againe at the same hole it came furthe
 and the foresaid thing shall remedie it anon
 And if the wound be hurte in suche manner
 1710 that the milt will not go in againe with the
 foresaid remedie then must thou cut the wound
 more large and after put it in, And if the milte
 be woundid in suche manner that it is almost
 cut in sunder and hingithe but by a litle gobet
 then cut the pece cleane of and cast it awaie
 For phisick saithe that it is possible a man
 to lyve without a milt then better he maie live
 with part of a mylt / When the mylt is
 1720 in sew vp the wound saving a hole in the louver-
 moste parte of the wounde wher thou shall
 put in a tent that the wound maie purg
 it self therat, And after heale it vp as is
 said of other woundes, and if the wound be
 but litle then sew it not but tent yt and
 heale yt as is said of other wounds./

IF THE bellie be hurte and bowells in suche
 manner that they be pertid and go furthe and
 the gut be half cut in sunder and the other
 halfe hole, Thus thowe shalt helpe it, Firste
 1730 take a quick beaste as a dogg or cat or shepe and
 all quick cut him abroad at the back and so
 splitt it abroad and laie yt vpon the bowell
 for to make them receyve the kyndelie heate
 againe and let the beast lie so longe vpon the
 Bowell vntill they be warme ynoughe, and
 thou shalt haue a litle styck of elder tre the
 lengthe of a large ynche and *a half* and the
 greatnes therof shalbe to the greatnes of the
 gut that is hurtid and take furthe the py-
 1740 the of the same styck and make yt as holowe
 and thynne as thou maie / then put the same
 holowe pipe into the hole where the bowell
 is broken, and gether the sydes of the broken

f. 63r

1718 When] *cancel.* the

bowell together, so that the broken place of þe
 bowell lie iust on the myddest of the pipe
 then sew the sydes together with a nedle and a
 small threde and beware that thou sew nothing
 of the bowell to the foresaid pipe when thou
 hast sewid yt vp, then shalt thou have a sponge
 1750 with warme water and weshe awaie all þe
 filthe that thou fynde therabout, And
 when the bowells are well clensid then
 put them into the wounde againe, And
 then laie the patient wide open vpon a table
 and thou shalt put either of thy hands on
 either syde of the patient wombe, and
 shall his wombe toward and frowarde
 well for to make the gutts to lie in their
 plac as they ought to doe, And if the
 1760 wound of the wombe be so litle that the guts
 maie not be put in againe then thowe muste
 Cutt the wounde larger And when the gutts
 are in again take hede that the broken gut lie
 even against the hole of the wombe so that
 thou maie strew vpon yt pulvis rubens vnto
 it be *perfitlie* consowdid together *which* shalbe
 within viij daies, and when it is consowdid
 then shalt thou sew the skynnes of the wombe
 together that is to saie cyphac myrak and
 1770 vtter /wombe\ skyn savinge leve a litle hole open
 in the wombe skyn wherbie the wounde
 maie purge it self and strew vpon the skyn
 pulvis rubens and put into the hole a litle
 tent and heale yt vp as is said of other wounds

FISTULES CANCERS and Appostemes grow-
 inge in the foresaid plac thou shalt help them
 as I haue said aboue, For when suche dis-
 eases ar in fleshlie plac they maie be helid
 with cutting burninge or freating oyntments
 1780 or corrosyve powder but beware that

f. 63v

1770 vtter] *cancel.* most 1771 wombe] *cancel.* of

1761 muste] HA. *bot. marg.* cut

1790 thou hurt not the bowells with any of the
foresaid things, And if the hole of the
fistulaie be straite then annoint the tent with
vnguentum egiptiacum vnto yt be large ynoughe and
make the patient at certein tymes to bowe
him self vpon a or a table bourd and that
bowing shall thriste oute the matter the better
And often put therin vnguentum ruptorium as is
said before of other fistules and that shall
stea the fistule or the canker and after
heale it as is said of other woundes./

1800 A Canker in a woman tete or in bothe the
tetes if the fleshe be hard and black of colour
all about then shall thow not meddle therwithe
for verilie it is vncurable except yt should
be cut out by the roote and that maie not be
bicause it is so full of venies and arteries
And if it be not hard but onlie about þe neck
of the pappe and in all other placs it is nesh
inoughe then yt maie be healid with powder
of affodill or vnguentum ruptorium or with cutting
as I haue said before of other cures./

f. 64r

1810 THERE happenithe sometime Aposteme to
be in a woman tete, For the pappes of women
are wounder stronge, and bicause of their
spongiositie they draw superfluitie of matter to
them which superfluitie after turnithe to an appo-
steme and waxith hard and makithe the tetes
to be bollen and haue mucche ake in them, which
diseas thow shalt help in this manner First
laye a maturatyve plaister therto which is
thus maid Take hock leues and lylie rootes
small stampid together and sethe them in mylk
strewing therin small powder of lynsed
and boultid flowre of wheat and swynes
greace sething all together to yt be thik
as plaister ought to be and ley this plaister

1786 a¹] lac. 1791 woundes/] HA. bot. marg. A 1812 rootes] HA. ext.
marg. Emplastrum | maturatium

1820 vnto the pappe, vntill it ripe the matter
then breake the apposteme and after hele it
as is saide of other appostemes withe
tentinge vntill yt be hole./

1830 IF THERE be a wounde in a mans coddess it
shalbe healid in the same manner with sewinge
and other doing as is said in other woundes
before and in the same manner shall thow doe
with the ballocks and if the ballocks go oute
of the skyn put them in again and sew the
skyn together and strew theron pulvis ru-
bens and after heale yt as is said of other
woundes./

f. 64v

1840 WHEN ther is a canker in a mans yearde
and it spredithe abroad over all the member
then paire it clene awaie rownd aboute
with a rasure and after burne yt with a hote
yron then heale yt as is saide before in
other placis / And if a fistula be in the
yarde then tent yt with *vnguentum ruptorium*
and after heale yt vp with other thynges
as is said before / and if ther be small
pymples or bleedders then heale yt with
vnguentum album but for the viniger do
therto water of Roses and in stede of
meat oyle put thereto oyle of violet men-
gid withe the white of an egge Or
els Take Iuice of merche and aloes and
white of an egge menge them toge-
ther in manner of an ointment and
therwith annoynte yt./

1850 CYPHAC IS A litle skyn which kepith
in the bowells that they fall not down
to the ballock coddess, which skyn oftimes
rechythe furthe, and sometime is brusten,
sometimes more, and sometime lesser, And if
the brustinge therof be but litle then yt is
but wynd which appearithe outward and þe

f. 65r

1821 hole/] HA. bot. marg. IF

winde makithe swelling to the quantitie of a
 wallnot or in manner of a hene egg at the moste
 and if the brusting be mucche then the bowells
 fall downe to the quantitie of thy one fist
 1860 or bothe. For this brusting if yt be but litle
 and of short time and is but a childe then
 thow shalt make a trushing to him in manner
 of a and giue him one manner of
 meat to take the space of ix daies begininge
 in the firste begyninge of the waxing of the
 moone. And if the bursting be mucche or of
 long continewnce then thow shalt heale yt
 by cutting and burninge in this manner
 1870 Firste laie the patient makid vpon a boorde
 and take the place wher the gutts do come
 furthe and marke yt with a litle ynke then
 cut the skyn as the marke ledithe the. And
 thow shalt then put thy fingers into the hole
 of the wound and thow shalt fynd a thick
 skyn with a hole therin *which* is callyd ciphac
 Thow shalt draw that skyn fourthe at the wound
 and gether the broken hole together in manner
 of a purse mowthe then take ij nedles *and* stick
 them crosse wise throughe a large ynche
 1880 lenethe the mowthe then thow shalt have a great
 threde iij or iiij^{or} sithes well dowbelid and
 twynid and waxid and bynde it hard vnder-
 neathe the nedles as fast as thow maie
 drawe yt and knit thre or foure knotts
 aboue, then shalt thow knit the owter and
 of the skyn to the quantitie of *half an* ynche and
 after burne yt with a hote yron then put
 in the skyn into his place and take hede þat
 the endes of the threde be longe ynoughe
 1890 So that they maie hing out at the wound
 and make the patient go to bedd, And
 then take lynet wet in the white of an
 egg and fill the wound therwith and so
 dight yt euery daie twice vntill the threde

f. 65v

1863 a] *lac.* 1879 ynche] HA. *bot. marg.* lenethe

will fall awaie and that shalbe within the
space of eight daies. Then shalt thou heale
yt vp with *vnguentum fustum* or some other
healing salve./

1900 AND IF the ballock stones be wunder greate
and fleshlie either as muche as a great rost
arde, or the one of them, suche diseases is
callid hernia carnosae, *which* thou shalt heale in
this manner, First vndo the skyn that the
ballocks hingithe in and take out þe bal-
lock then take a knife and cut the fleshe
depe to thou come to the vtter skyn of the
ballock stone and slaye it round aboute and
cast awaie the fleshe therof I let the wit
the fleche will depart therfro as lightlie
1910 as an oxe hyde or shepes hyde will parte frome
the fleshe in slaying And when all the fleshe
therof is had awaie annoint yt with the yolke
of an egg all about and put it into his
proper place again and sew the vtter skyne
and after heale yt vp as is said of other
woundes./

f. 66r

IF THE stone be in the bleder in this manner
thou shalt know yt, maike the patient to lie
wide open vpon quishions and make him
1920 houlde vp his fete stiff vnto the firmament
and bynde a Rope about them and tie them
vp to a balk and make one to sit vpon the
patient breast / then put two fingers of thy
right hand that is to saie thy longe finger
and thy former, into the patient ars hole
and thrust thy thombe adowne vpon the pa-
tient yarde, Searching with thy fingers
vpwarde so far as thou maie and if thou
fele any hard /round\ thing in the manner of a
1930 dove egg or a litle hen egg trust verilie
that it is a stone, and if yt be a neshe
round gobbet then yt is a pece of fleshe
congelid in the bladder *which* will not
suffer the patient to mak water some-

tyme./

MANY man often times is lettid to make
 water bicause the stone fallithe downe in-
 to the neck of the bledder and stoppithe
 The waie of the water Firste therfore take
 1940 a great quantitie of hock leaves with half so muche
 of peritorie leaves and strew theim in a pott
 with water and after laie them in plaister wise
 vpon the share as hote as the patient maie
 suffer it. And take /parte of it\ pet lyew and cast it
 into the yarde with a syring. Then take
 a long pyne having a rownd hede and put it
 into the yarde furthe right with thy hand þat
 the pyne heade go not besyde the stone, and
 in this wise shalt thou cut the stone downe
 1950 againe into the botome of the bladder./

f. 66v

HERE I SHALL shew the how thou shalt
 have the stone furthe of a mans bladder
 First thou shalt diet the patient with light
 meates and litle in quantitie at ones by the
 space of two daies before / then the thirde
 daie the patient being fasting thou shalt
 make him lie wyde open and a man vpon
 him sittinge in the same manner as is saide
 before in knowing the stone. And thoue
 1960 shall put thy ij fingers into his ars so far
 as thou maie reache them, but first an-
 noint them with some oyle or other lycour
 wherbie ther maie more easilie enter
 Then thrust downe thy thombe of thy other
 hand vpon the share to maike the stone fall
 downe to thy fingers then shalt thoue thrust
 the stone toward the gutter or the yarde and
 maike yt go so far into the condyte as thou
 Maie And when it will go ferther then cut
 1970 the skin of the bladder wher the stone lyethe
 with a knife and draw furthe the stone at the
 same hole, Then sew yt vp againe and plai-

f. 67r

1938 stoppithe] HA. *bot. marg.* the 1968 thou] HA. *bot. marg.* maie

ster it with pulvis rubens mengid with the
yolke of a egge euerie daie twise to yt be
cosowdid and hole./

IF THE rigg bone be woundid in suche manner
that the marrow come furthe, Then vnder-
take it not for it is deadlie, and if the
marrow appear not, nevertheles some
synows be cutt in sunder Then strew theron
pulvis rubens and fill the wound with lynet
spred with some healing salve and so dight
yt to yt be hole./

SOMETIME yt happenithe the Reynes to
be woundid, Then I give the counsell not
to meddle therwithe For it lyethe not in
mans cure to heale yt for yt is deadly

EXPLICIT LIBER
TERTIVS

IF THE WHIRLEBONE BE HURTE
with a sworde in suche manner that some of
the bone be smitten awaie and some abyde still
Then if ther be any broken bone in the wound
take yt oute, and after make clene the wound
and sew it vp and strew theron pulvis rub-
ens and hele yt as is said of other woundes.
And if yt be shott with an arrow or darte
and the head abyde still in and cannot lightlie
be gotten oute then cut the fleshe aboute the
head even to the bone and then fasten thervpon
a paire of pinsonnes and draw it out and
after heale it as is said of other wounds./

A WOUND with a Sworde happenithe to be
many times in the thighe with hurting of the
bone or not Thow shalt heale it in the same
manner as is said before of woundinge of the
arme, And if it be hurte with an arrow or
qnarrell then thow shalt hele yt vp in the same
manner as I haue beforesaid in heling of the
Arme.

f. 67v

1980

1990

2000

2010

IF THERE be a wound in the kne maid with a sword
 in lengthe or ouerthwart So that none of þe bones
 be hurt then clene the wound and sew yt vp
 and strew theron pulvis rubens and hele it
 vp as is said of other woundes, And if
 any bone be hurte, Then take the broken pece
 oute and after sew it vp *crosswise* and if ther stick
 an arrow hede or a qnarrell head then draw
 it out sotellie in suche manner as is said before of
 2020 other cures and after heale it vp in the same
 manner./

OFTENTYMES it happenithe that þe whirlbone
 is out of ioint throughe a fall or throughe to muche
 moystnes And thus thou shalt bring it into ioint
 againe First thou shalt make the patient to lie
 wyde open and an hevie maner sit vpon his boody
 and thou shalt make an other man that is strong
 to take the patient by the same foote of the *which*
 the hipp is out of ioint and maik him draw with
 2030 all his might the same legg and thy self
 shall ley thy /one\ hand vpon his hipp and thother
 vpon his whirle bone to know when yt is
 right in ioint And when it is right in ioint
 Then take white of egges and bultid floure of
 wheat meng them together and sprede it on
 a clothe and laie it all abroad vpon the ioint
 and haue a thyn narrow boord of ij foote and
 a *half* of lengthe, and set yt on the vtter parte
 of the hipp So that half the bord be aboue þe
 2040 whirle bone and half beneth then take a
 long narrow towell and roll yt about the
 thighe and the lower and of the bourde
 and in like manner about the bodie and the over
 end of the boorde and so let it remain bound
 iij daies together the patient lyeng still all
 þat time vpon his bedd. Then vndo the towell
 anoint the place aboue the whirle bone

f. 68r

2030 thy] *cancel.* sef **2042** the²] *cancel.* thighe

2021 manner/] HA. *bot. marg.* Of

and about with dewte vnto the ake and dis-
eas by passid awaie /

- 2050 SOMETIME the thighe bone is broken in sonder
with brusting of the fleshe also. Firste ther-
fore maike the legg to be drawn and the
bone set together as yt oughte to be, Then
Cause a man to houlde either of his handes
to either syde of the wounde bringinge the lips
of his wound together then sew it and strewe
theron pulvis rubens / then take ij litle peces
of colophonie and waxe and ley thone to the
one syde of the wound and the other clowt
2060 wheron the waxe and colophon is
spred to thother syde of the wounde and
j ynche space being betwene the cloutes
and the lippes of the wounde / And thow
shall tie the sydes of the clowtes together in
suche manner that thow maie vndo them
when thow likes then splet the thighe all
about saving thow shalt ley no spelt vpon
the wound And dight yt euery daie to
it be hole as is saide of other woundes and
2070 let it be speltid awaie to the wound be
hole./

f. 68v

- THE bone of the legg sometime is broken
with hurting also of the fleshe and thow shalt
hele it in the same manner as is sayd in
brusting of the arme and if the bone
of the legg be broken in sunder withoute
hurting of the fleshe then set the bone to-
gether as it ough to be and laie vpon
it a plaister restrictyve, and splent the
2080 legg ix daies or x together, and then
vnspelt yt and then annoint it euery daie
with Dealtea vnto yt be hole./

MALUM MORTUUM is callyd in frenche

f. 69r

2060 colophon] *cancel.* are

2082 hole/] HA. *bot. marg.* malum

and also in englishe a Mormall *which* is as muche
 as to saie a dead sore, And is so callid as it se-
 mithe bicause (*truthe* is) it is alwaies full of
 dead fleshe *which* mormall maie be causid in
 two manners / Of a wound or bresure
 noughtelie healid and so drawing it to a
 2090 festure and frome a fasturing to a mor-
 mall./ or els it comithe of an evill humor
 of flewm or malancolie descending downe
 frome the bodie to the legg throughe freting
 of *which* matter a sore is causid in the
 legg *which* grewithe to a mormall. and a
 mormall causyd in the firstt *manner* is helid
 in this wise / take a pottel of stronge
 tamphouse and put it vpon the fier and
 put therto a pownd of bale madder and
 2100 maike it sethe vpon a soft fier to half the
 lycour be wasted, Then strein it throughe
 clothe and put it on the fier again, and
 put therto *half a pound* of alome roche small
 broben and let it stand vpon the fier to
 all be meltid then let it kele and put
 it in a glas to kepe, This water is cal-
 lid water of corall and in latten aqua
 corrali bicause as well of the noblenes
 of yt as also for it hathe a colour like read
 2110 Corall. It ys good to Clens all *maner* of
 Cankers and festoures and fistules and mormalles
 Therefore washe the mormall euerie daie twies
 with the foresaid water, And when it is clene
 weshid drie it with a lynnene clothe And
 sprede of this oyntment vpon a lynnene clothe
 if the sore be not depe And if it be depe
 sprede /it\ vpon lynet
 Take sulphur *half an vnce*, powder of vert-
 greace j *quarter* of an vnce make them so small
 2120 as thow can in a brasen mortar puttinge

f. 69v

2116 depe²] Irep. And if it be depe 2117 vpon] *cancel.* it 2118 Take]
cancel. lynet

2106 cal-] HB. *ext. marg.* Aqua corall 2110 of] HA. *bot. marg.* Cank

therto meat oyle to thow haue putt in j pinte
 and of quick silver *half an vnce* and of swines grec
half a pound menge all well together / and of read
 honie half a quarter of a pinte meng all
 well together in the said mortar. Then put
 therto j quarter of a pownde of emilla can-
 pana tenderlie soden and stampid by it self
 before and men yt well with the foresaid things
 then put therto j quarter of a pound of rosyn
 2130 and of waxe j *pound* which waxe shalbe molten
 with the foresaid oile and of powder of oliba-
 num j vnce and a *half* meng all thes well together
 in a mortar to it be sottell and after put it
 in a boxe and kepe it to thy vse This oynt-
 ment is *precious* for the Canker and to clense
 all manner of foule wounds and sores that are
 causid of ouermuche moystnes. For it shall drie
 them vp./ And if the mormall be causid of
 the second manner, First thow shalt make a
 2140 Syrup to clens the bodie in this manner.
 Take the rootes of fenell and of *parsilie* of ra-
 dishe of gladen of astrologia longa and ro-
 tunda of eche *half a* handfull madens heire
 harts toung scabious fumiter germander
 medratill of eche. j. *quarter.* of a handfull egre-
 moyne colaver forte / pigle vngle daisie
 Strauburie wises pimpernell, betonie
 tyme heyhane of eche iij *quarters* of a hand-
 full, of Wannes ij handfull, of the rootes
 2150 of madder iij handfull. First weshe the
 rootes clene and the herbes and stampe
 them small and put them to a gallon of good
 wyne or read viniger in an erthen pott
 and let them rest so together the space of
 ij daies and ij nightes Then boile it vpon
 a soft fier to the third *parte* of the lycour be
 wastid then strein it throughe a clothe *and*
 take hede how much lycour ther is and put
 therto the third *parte* of clarified honie and

f. 70r

2140 manner] HA. *bot. marg.* Take

- 2160 put it on the fier againe and make it
boile with a soft fier half j quarter of an
houre then let it kele and put it into a
glas, of *which* thow shalt giue the patient to
drinke euerie daie iiij sponefull with vj
sponefull of water fasting in the morning
This syrup shall clens the sore and suffer
no corruption abyde therin and yt shall
cast the matter furthe of the bodie
that causithe the mormall Also it is
2170 good for appostemes bredd in the bodie
And for flewme and Mallancollie and for
stopping of the lyver and the milt and for
the stone and for the cowghe and for akinge
of the raines. And this oyntment shalt thow
laie therto. Take vnquenshid lyme and weshe
it with water well and let rest the space
of an houre then powre out the water and
washe it again with new water and do as
thow did with thother and so weshe it vij
2180 times, Then put yt in the sone to drie, And
when it is drie take of this powder *half an*.
vnce / and of litarge of gould iij quarters of an
vnce of campher ij penie weight of oyle of
Roses iij vnces of white vineger *half an* vnce grind
all thes together and make therof an ointm-
ment in the same manner as thow shoulde
make vnguentum album of *which* oyntment thowe
shalt sprede vpon lynet if the wounde be
depe And if the wound be not depe sprede
2190 it vpon a clothe this oyntment is good for
all manner of breming sores and for all manner
of moiste tender sores for to drie them vpp
in short tyme.

THROUGHE Slyding or falling it with a
stroke the foote is somewhiles brought furth

2179 vij] *cancel*. daies

2170 bodie] HA. *bot. marg.* and 2180 times] HA. *ext. marg.*
Emplastrum | refrigidatium | et deficiatium

of ioint and in this manner thow ought to
bring it again. First thow shalt make the
patient to sit vpon his ars and cause a man
to hould the same legg wherof the foote is out
2200 of ioint and thow shalt take the foote
and draw it in again And if it haue bene
longe furthe of ioynt. then take cheken wede
and hock leues and a litle of shepes talowe
and boyl all thes together in water. And
when they are well boylid weshe therwith
the same foote well and after plaister the
same foote with the same herbes all hote and
let yt lie therat the space of ij houres
Then take the plaister awaie and draw
2210 it into ioint. And take this for a generall
rule / that if any lyme haue bene longer furth
of ioint then ij daies. then must thow maike
a fomentacon with the said herbes in the
same manner as is saide here before. And
if it happen that any of the toes be oute of
ioint then set them in ther plac as they
ought to be and after spelt them as they
ought to be viij or ix daies then vndo the
spelts and annoint the toes with a litle mer-
2220 vall ij daies together.

CANKERS and fistules sometime growen in
the said places and somwhile they frete
the fleshe onelie and somwhile they fret and
corrupt the bone and bicause thes places
are fleshlie and not full of venies or ar-
teries or synowes Therefore we may fret
awaie the cankers with corrosyves and
burninges and cutting. And note that
sometime , the lyppes of the Canker on
2230 thes plac spredithe abroad and somewhiles
are strait together And if the lippes be
spredd abroad then cut awaye all

2200 shalt] *cancel.* draw

2232 all] HA. *bot. marg.* round

2240 Rounde about with a sharpe rasure and after
 burne it with a hote yron and after plaister it
 aboue with the yolk of an egg vnto the fyer
 be out therof and hele it after as is said
 of other woundes, And if the lippes of
 the canker be straite together
 then maike a plaister of waxe and sprede
 it abroade on the Skyn about the lippes
 of the Canker but lay no wax vpon the
 lipps then lay abrode vpon the lippes
 vnguentum ruptorium and let it remain ther-
 on frome morne to even then take yt a-
 waie and ley theron the yolk of an egg vnto
 the burning be gone then hele it after
 as is said of other woundes, And if
 any bone be corrupt with the canker
 then take yt out if it be corrupt
 2250 over all, And if it be corrupt but *parte*
 then haue awaie all the corruption ther-
 of with paring of some instrument
 maid therfore. And if the canker
 be black in colour and also a foule stinke
 then strew theron pulvis affodili euery
 daie to the blacknes and the stinke
 be gone. And when the grounde is
 clene and hathe no ill savor Then
 2260 heale it vp as is saide of other
 sores before./

TO MAIKE Antioche royall. Take spyknell
 centorie, burnet, origane, herbe robert, scabious
 ribwoort, brome, wena, vervain, egremonie
 matfelon, bugle, wylde sage, mugwoort, pu-
 liole mountain, brownwoort, betonie, malows
 playntain, pulial royall, pегle, fumiterre of
 munde, dayse, calaminte, prymrose, melle-
 foyle, herbe John, strawberre wise, saxifrage

2238 straite] *rep.* be strait

2260 before/] HA. *bot. marg.* To 2261 spyknell] HB. *ext. marg.*
 Antioch Roiall

2270 walwort, dandelyon, gradei, maior gracia
 dei minor, sanicle, /smallage\, herb yve, red fenell vio-
 let, bryrie croppes, valeriane, wylde tan-
 sey, tryfoyll, quint foyle, red nettle comfrey
 wilde tassel, neparte, sawge, wormewood
 harehounde, dytain, oculus parpi a penny
 weight of them bothe, emilla campana, roste
 /rose\ marie, lavender, rew, celidonie, ysop, golde
 tamsey, lange de boeff croppes of eche one of
 thes *half* a handfull, and of avaunse the weight of
 2280 half the foresaid herbes and of the bale
 madder as muche as of avaunce and all
 the foresaide herbes weight. First wesh
 clene all thy herbes then braie them in
 a mortar after put on the fier in a
 great pane well skowrid and put ther-
 to ij gallons of white wyne with a pottell
 of clean well water and let all boyle
 together with a softe fier then let it kele
 and strain yt and put it on the fier a-
 gaine and put therto a gallon of clarified
 2290 honie and let them boyle together casting
 Therto the white of xij egges and when it
 is boylid well let it runne through a
 cloathe and when it is cold put it into a
 vessell of powder or els a glas or els it
 wyll penetrate and rune throughe. This
 Drynk is callyd Antioche bicause
 yt was first found in the cite of An-
 tioche. yt is good and *precious* for
 all manner of woundes that any man
 2300 hathe and that *without* any Salve to hele
 him. Therfore thou shalt take iij leves
 of red cole and ley one vpon an other
 aboue vpon the wound and remove it as
 often in the daie as thou would an other
 salve with new leves and giue þe patient
 of this drink to drinke twice euerie
 daie in this manner. Take iiij^{or} spone-

f. 72v

2290 casting] HA. *bot. marg.* therto

2310 full of water make it skalding hote
then put it in a cupp and put therto iij
sponefull of Antioche and stere all to-
gether and let him drink./

TO MAKE a precious medcyne to
hele all manner of woundes without
plaister or any other salve but a wort
leef. In May for all the year for
then is best gathering of herbes, take
Wann, bale madder mowseare tansey
the croppes of the red nettell the
cropps of read hempe, vngle pegle sani-
2320 cle ribwoort, brown woort cowsloppe
Canfrey, dasey, bytain, Rudwoort pla-
yntain, fumiterre, wild sawge egrymoin
pimpernell puliole mountain puliall roiall
scabious, ground yvie, rew, gradei, mor-
sus diaboli, violet, matfelon, cowselopp
prymrose terfoyle, eufrace, medewort
spycknell flowres of solsequele, flowres
of woodbynde, astrologia rotunda care-
awaie, allya, chekenmete, rose marie
2330 herbewater, herbe Iohn, endyve, herts
tounge, sorell, hertwoort, herb Robert
Lavache, camomyle, time, *parselie*, borage
wormewoode. Take thes herbes and
stamp them with clene butter and propor-
tion them in this manner, take as
muche avaunce as of all the other herbs
and take of the rootes of madder
half so muche as the weight of avaunce
and madder by thre *partes* / And of
2340 the other herbes moste shalbe the mouse
eare bugle pegle and sanicle and of all
the other herbes shalbe like muche
First thow shalt weshe clene thy herbes
then stamp them, then knede them with
clene clarified butter and let it rest
so all together in a clene vessell well
coverid that no filthe come therat
nor no venimous beast by the space

f. 73r

2350 Off five daies, and looke þat thowe
 have half so muche butter clarified in
 weight as are the herbes. Then put it on
 a soft fier and make yt to boyle half an
 howre, Then strain yt throughe a clene
 clothe of canvas into a clene skourid
 pane. Then put it on the fier againe
 and make yt boyle well and haue away
 all the scome therof. then take it from
 the fier, And when it is could put it
 2360 into a clene boxe, and kepe yt to thy
 vse, but a vessell of earthe is best to
 kepe yt in and gyve of this as muche as
 a wall nutt twise in the daie by it self
 or els take the foresaid medcyne and
 melt yt with iij sponefull of water and
 give the patient to drinke fastinge in
 the morninge and last at even when he
 goithe to bedd./

FINIS HUIUS
 LIBRI

2370 THE WOORDES OF THE AUCTOR

f. 74r

DISPISE NOT THIS LITTLE BOOKE ALL
 BE IT I HAUE NOT SET IT FURTHER IN GO-
 ODLIE SPECHE, FOR I LET THE WITT I HA-
 VE SPOKEN OF NOTHINGE HERM BUT
 SUCH THINGS WICHE SHALL TURNE
 THE TO GREAT PRASICTHE AND PROFITT
 WHEREFORE BE A BESIC REDER THEROF AND
 PRINT IT IN THY MINDE./

2380 *Take* doves foote an herb. Arkangell. Ivi with
 the buryes. young reed brier topps *and* leaves.
 white roses their leaves and buddes reed
 sawge Celandyne and woodbind *and* cut *and*
 cropp. all thes in white wyne and cla-
 rified honye then break into yt alome
 glasse and a lytill powder of Aloyes
 hepatica / And distill all thes sotlye to-
 gether in a lymbeck. kepe this watter.
 close for yt will kyll. the kanker yf it
 be dalye wesshed. therewith.

2390 *Take* the sirupp of madenhear and of
 ysopp. And take a lykores still stroped
 and dip into the said sirupp and chew
 it and dipp againe vse this before meat
 and last at night and yt will breck
 the coold and stopping in the brest

TO KILL A RINGE WORME SCABBE
 crewlls or any suche other prowde felon
 that yekethe and waterithe *Take* brim-
 stone vive, clowes and maces braie þem
 2400 small then blend yt with black sope
 and swines greace and annoint the place
 therewith and yt shall drie and heale yt
 verie well and *perfectlie.* / *probatum est.* /

f. 74v

FOR THE Pestilence take eggs and
 weshe them clene and drie them againe

2382 and^{3]} HB. *ext. marg.* Canker **2392** chew] HB. *ext. marg.* Coold
 or stopping | in the brest or | pursyvenes

then breake them in two in the middes and
 do with the meat therof what thow will
 then take the shells whilles they be grene
 and pyke furthe the ryne clene *which*
 2410 is within them and then drie the stooness
 on a hote tile stone that they may be
 Brayed to powder, and except ye do
 yt when they are grene the Ryne
 will not *parte* streine the shells take of
 the powder of the shells ij vnces boll
 armoniak *preparat half an vnce*, sulphur j
 vnce *and a half* of good lycor. v. drames
 and make all in powder and when ye
 will give to any þat is infectid, Take
 2420 half a sponefull of good triakle and
 meng of this powder therwith vnto
 þe sponne be full of them bothe then give
 it þe sick with warme ale or with white
 wine next with rose water even so
 Some as he fallithe syck for the soner
 the better. This medcynne was highe-
 lie prasid by the phisician that prac-
 tisid the same seing he could never see
 any so good, And for ordering of the
 2430 pestilein bothe Vide *supra* so: xv and
 who so euer hathe the pestilenc let hym
 be kept warme and close or in his
 bed, For wynde raine or colde eyr
 is redie dethe to him that hathe the
 pestilenc meshid or Ague. And if
 the sicke happen to vomite the sayde
 drinke, then weshe his mouthe with
 the said wine And let him drynk
 again and so half a dozen times vnto
 2440 he do hould it./

f. 75r

A pretious water if thowe
 wilt vse it./

2412 do] *rep.* do

2424 so] HA. *bot. marg.* some

TAKE a handfull of weybrode one
 handfull of housleke. of Rose merie
 Isope and sawge. j. handfull, put those
 herbes in a quarte of runninge water
 and a quarte of white wine with vj
 blanchid almonnes well beten sethe all
 together to tyme half thy lycour be soden
 2450 awaie then clens thy lycour fro thy herbe
 throughe a clothe but wring not the
 Clothe. And when the great hete is oute
 put therto one dramme of camphere, which
 thow shalt have at the poticaries. Put this
 water into a glasse and kepe it for yt is
 a verie good water to washe therwith any
 sore and namelie a sore legg and will
 heale yt without any other salve, if the
 sore be not verie olde, Thow shalte
 2460 woorke with it in this manner. put this
 water in a saucer and with a Fether
 washe this sore, and when it is well
 washid depe a litle lynt in water, and
 put yt on the sore and then Cover it with
 a hoke leaf or a dokan leafe or a keall
 leafe and then lap it about with a Cloathe
 and thus do twise on the daie./ *probatum* est./

f. 75v

FOR THE Pestilence: take half a handfull
 rew a handfull marygold a handfull
 2470 feverfew a handfull sorell a handfull
 burnet, half a handfull dragons, the
 top in summer the roote in wynter wesh
 them in runinge water, put them in
 an earthen pot with a pottell of freshe
 runing water let them sethe soberlie
 to the half be consumid then take it fro
 the fier and let stand to yt be almost
 coulde then, strein it into a feir gles
 and kepe yt verie close. vse therof
 2480 morne and even and when nede is

2451 the] HA. *bot. marg.* Clothe

after. And if it be to bitter Delaye
yt with suger Candie, And if it be taken
before the purples breake furth, ther is
no dowt by the grace of god but yt shall
mend any *maner* woman or childe / *probatum*
est. vide infra folio vj^{to} ad hoc signum.

f. 76r

2490 A pretious water for sore eies or for
him that hathe lost his sight althoughe it be
by the space of. x. yeres, if ther be
any possibilitie therin So that the med-
cynne be vsed. xl. daies together. Take
smallage, reu fynkells, vervine egre-
monie, scabies Wannie houndestounge
Ewfrace pympernell, sawge, still all thes
together with a litle vryne of a man
Childe, v grames of Frankensence and
Everie night put one drop in the sore
even. / *probatum* est /.

2500 TO CLEARE Eies *which* ar not sore. Take
rew, vervine, rede roses celidonie
still them and this water is goodd./

FOR THE fever quotidian, tertian or
quartane Take mouseare camamile
bursa pastoris rede nettell woorme-
wood chervill of euerie like muche stampe þem
and drinke þe Iuice therof in ale xij daies
/ *probatum* est /

FOR any evill in the stomake. Take the iuce
of Smallage and drinke yt. / *probatum* est. /

f. 76v

2510 FOR A Vehement Fever or ague take feir
whey clarified and barley well stepid and
huskid / buglos / Sicurie / Endive and lico-
res *an ounce* all well brusid and soden in
an earthen pan, and let thy whey be

2488 be] HC. *ext. marg.* Sore Eyes vid: postea | fol: 95: 96 ant: 41: 42:
| postea 85. **2493** houndestounge] HC. *ext. marg.* betonie
2499 Take] HC. *ext. marg.* to clear Eyes not sore **2507** /²] HA. *bot.*
marg. For

clarified with the white of an egg.
 And after yt is streynid gyve the
 patient therof to drinke even and mo-
 row and an houre before dynner. *probatum est* /

2520 FOR THE Ciatica or other colde malady
 take leves of bay tre and new hors dong
 boyle them in stale pys and maike a
 plaister therof and within iij tymes the
 patient shall mend therof if yt be
 any thing curable.

FOR A MAN THAT IS thursten first pur-
 ge him with easie lapis and let him kepe
 strait diet to the matter be vp into
 his bodie then bolster yt verie suerlie
 2530 to kepe it vp with a litle bolster so brode
 as thy hand or broder as nede re-
 quirithe. Then take the iuice of polipodin
 which is fern growing vpon an oke tree
 Iuce of dasies comfrey / avance, betony
 in winter rootes and all in sommer
 either at thy pleasure of euerie a
 handfull streynid and well stampid with
 a quarte of good stale ale let him drink
 therof ix daies at morne cold and last at
 2540 even blood warme and kepe sklender diet
 and by the grace of god he shalbe hole *probatum*
est / Or els take rede wyne a pynt
 half a pynte of sand hony a handfull of woor-
 mewood a handfull of rew well brusid a
 penyworth comyne well brusid put therto
 and thicke them in a pann with as mucche
 bean flowre well bultid and so make a
 plaister therof in a lynnen pockit. And
 ley it to so hote as the patient may suffer
 even and morn And within iiij^{or} daies þe
 2550 hole of the wound shall seme larger
 and the matter which did hing furthe shall
 be sowple and easie to be put vp. When

f. 77r

2535 a] HA. *ext. marg.* hand

it is vp trus yt suerlie with a cod. And
 giue this drynke folowing. Take a pint
 of stall ale / a quantitie of okefern callid
 polipodium the rots and as muche roots
 of callid druff it bearithe a read
 flowre and is grene in winter and somer
 as muche mowsyer rote and all./ as
 2560 muche avaunce rote and all well
 weshid stampid and streynid with þe said
 ale let the patient drink therof first
 at morne cold and last at even warme
 and keping good and sklender diet with
 in twelve wekes he shalbe hole without
 fale by the grace of god./

TO STOPPE the blodie flix. Take a hand-
 full of beans / *proche* them on a tyle stone
 pyke of the hulles braie them in a mortar
 2570 to fyne powder, Sethe that poudre in
 a pynte of rede wyne and synamond
 to they be as thic as leche then so sone
 as yt is could sklyce it and ley the
 sklyces on a sawcer before the fier and
 when they are warme let the patient
 eat them first and last./

TO STOP all manner flix blode or not
 Taike a quartron of almonds blanchid *an ounce*
 of fyne chalk. j. quartron of stones of the
 2580 read hawes *which* grew on white thorn
 iij spone full of grots of oten meale. j
ounce of pepper, *half an vnce* of grains braie
 all thes together boyl all this a litle in
 a pot with a quarte of wine callid red
 raspise. Gyve the patient the third
 parte therof to drinke so warme
 as he maie and let him go to his na-
 kid bedd. and Cover him warme
 and tarie with him, and if he list to
 2590 drinke gyve him of the same wyn

f. 77v

2557 of] *lac.* 2566 god/] HA. *bot. marg.* To

and so let him drink therof even and
morn to he be hole, / optima meditina /.

A goode suppositarie Take a spon-
full of honye and put it on the fier
In a laten laddell or a litle pan and
boyle yt to yt wax thik Then take a
litle freshe grece and annoint a tren-

f. 78r

2600 is warme and vpon that trencher
maike therof four rolls as long but not
so big as thy litle finger. And let the
patient or for him thrust one of the
rolles over the head in his fundament
depe and leve it ther vnto the patient
go to stole, And so the second and the
thirde, and so the fourthe and euerie
one with a convenient leysure,
betwene, will cause him to haue a
2610 sege, or take a litle of the yolk of
an egg, blend it well with salt make
therof a button in a litle cloute some-
what bigger then a great hasill nut
bynd it hard with a dowble threde
and thrust yt into the patient funda-
ment, and some after he shall have
a good sege, and on the morn do
suche like and he shall haue an other
and this shall do any seke man that is
2620 bound in his bodie great ease let
the threde bring furthe of the funda-
ment þat thow maie pull out þe pellet
again after ij or iij houres if it spede
not but I never knew but it sped
well./

TO maike a man slepe, Take sede
of lettice and sethe it in running water

f. 78v

2608 leysure] *cancel.* and,

2594 fier] HA. *bot. marg.* in **2625** well/] HA. *bot. marg.* To

and let him drinke therof last a night.

2630 FOR burninge or skalding Take the
rootes of lylles and bruse them well
in a mortar and meddle with it boares
greace or freshe larde, hennes donge
and the ynner barke of burtre, Frie
it in a pan, strein yt throughe a
Clothe and anoint the sore with a
fedder, or take shepe tryddles and
blend them well with creame of
mylke, then strein yt and therwith
2640 with a fether annoint the burnid or
scaldid place ij or iij in a daie./

FOR olde Sores to clens them to take
awaie þe stinche and to heale them, Take
hony white viniger and white wyne, of
euerie one a pinte, boyle them well and
stirr them well, then put therto
ij vnces of vertgreace, braide to fyne
powder, Then boyle yt to half the ly-
coure be waistid, then take it down
and if yt be hard then laie yt to the
2650 sore on a lynnene clothe, and if yt be
soft then laie yt on with laint, And if
yt worke over sore delaie yt with oyle
of Roses

FOR freshe woundes and clean sores to
heale them hastelie, Take frankensence
as muche of fyne Rosyn by it self grinde yt
on a stone and even in the grinding put ther-
to a lytle oyle of roses and so vnto yt be a
good softe ointment, and lay it on the
2660 wounde or sore with lynt./

FOR heate in a sore, Take malows house-
leke sorell marigouldes the iuice of them
all, as muche viniger as of all the Iuce
wete a clothe therin and ley it to the sore

f. 79r

2645 them] *cancel.* wyn

and euer shift yt as yt driethe *probatum* est /

FOR canker, fistula, old sore or new, or
for woundes a provid medcyne, Take
ij gallons of Runinge water, half a
peck of ashes of grene eshewood make
2670 therof a gallon of lee / put therto a
gallon of Tannar owse, a pounce of ro-
che alome and a pound of good madder
sethe all thes to almoste a gallon in a good
bigg pott that will hould twise so muche
lycour for rising over and stir yt well
for running over and when yt is boylid
iij or iiij^{or} houres, strein yt through a new
Clothe of canvas or harden and when
ye will vse yt wete a linnen Clothe
2680 therin clene washid withoute sope or
els lynt and laie to the sore./

FOR THE STONE or strangulion well
previd Take *parselie*, *saxifrage peritorie*
of the wall pelymointaine otherwise
callyd wylde tyme and vnsett tyme
of euerie a handfull weshe them and
stringe them in a clothe, put them in an
earthen pott with a quarte of malvesey
boile it to the half be consumid and
2690 when the payne comithe drinke of
this a good draught blode warme
Or take *parselie* sede broome sede
grommell sede, Annes sede, plantain
sede smallege sede of eche j quarter
of an vnce nutmiggs half an vnce
fyne suger iiij vnces bete all toge-
ther in a mortar verie small then
skarce yt and drinke this powder
even and morrow iij daies in a weke
2700 warme with wine or any other drink
the quantitie of powder aboute a
great hassill nut full, And if the

f. 79v

2684 otherwise] HA. *bot. marg.* callid

- pain be verie sore take the ointme-
 nt callid Deathea and oile of ro-
 ses half an vnce of eche and ann-
 oint *your* syde where the pain is
 against the fier so hote as thow can
 suffer yt and that will cause þe
 stone to void shortlie Then take
 2710 a handfull of *paritorie* and an-
 other of madenheir, a quarte of
 white wyne, boyle them together
 strein them and take a good draught
 of the wyne hote and put of the
 sayde powder therin And it shall
 Incontinentlie help man or wooman Iff
 ye cannot haue mayden heare then take
paritorie alone And this is moste soueraign
 medcyme / *probatum est.*/ f. 80r
- 2720 FOR the yealowē Iawnes, take rede dock
 roots weshe them clene and lightlie scrape
 of the vpper rynde and take the softe
which folowithe and when thow commist to
 the harde core of the roote cast that
 awaie And put a handfull of the
 soft of the roote in a gallon pott of
 new ale when the barme is new put
 to so that all maie woorke together and
 put the rootes in a kell of threde toge-
 2730 ther or els in a cypres Clothe bicause
 the ale maie the better take the vertue
 of yt, but let the cipres or kell be clene
 washid without sope: (It is better to bind
 yt fast with a threde and then hing it
 in the pott of the ale, And when it is
 ij or iij daies olde let the patient
 drinke therof, This medcyme hathe he-
 lid when many other with counsell of doc-
 touris of phisick hathe falid, And if ye

2725 put] *cancel.* not

2715 shall] HA. *bot. marg.* incon

- 2740 take the ynner barke of barberie tre
with all yt shalbe the beter./
- A Spetiall medcyne or ointment for
the great pocks, Take j *pound* of bores
greace ij vnces of fyne frankensence
beten to fyne powder ij vnces of ceruse
otherwise callid white leade bett all
together in a morter a good space
Then put therto ij vnces of argenteum
vinum well and suerlie slaine, then bete
2750 all together by the space of ij houres
Then take therof ij vnces and put ther-
to a quarter of an vnce of sanguis
draconis and as muche of mastick well
powderid and beate it vntill yt be
a faire reade ointment, Then take þe
seke persone and before a great fier
annoint him euerie ioint so that the
oyntment do drinke in, then maike
a plaister of lynt and laie thereon the
2760 same rede oyntment, And putte the
sore and se thow do slaie the sore first
with grene coperas burnid, then laie þe
sick in his bed with clothes ynoughe on
him that he maie sweat the space of
iiij^{or} howres after his dressing and
so annoint him vj daies but let him
kepe his bed ix daies and at xi daies
end let him rise and walke aboute
in his chamber to tyme his sores be
2770 clene hole / then let him have a good
purgation and that done go abrode ij
daies wher he will so that he kepe good
rule and good diet, But within ij
daies that he is laid his mouthe
wilbe sore within and rune of water /For that\
Take a handfull of ysopp a handfull
of rew annother of Sawge ij spone-
full of honie a goblet full of white
wine a pottell of faire water
2780 boile all together to the half be

f. 80v

waistid and then with all warme weshe
his mouthe and by the grace of god he shall
be hole. *probatum est.*/

A mans pintill sometyme wilbe sore within
so muche that if thow thirst the end therof
thow shalt se rotten white ware come
furthe the cause therof is a mans oune
nature not well expulsid, but parte
dothe tarie at the knot of the yarde
2790 and Rankelithe and if yt be so longe
it will perce a hole throughe and will
appear aboue vnder the foreskyn Take
coperons burnid as in the next medcyn
before. put therof a litle in new ale or
new drink and stirr yt to yt be molten
then take a squirt maid of a small gose
or hen pen thrust this pen into the pintill
end and squirt in the drink. j. or. ij. in
the daie and within ij or thre daies
2800 yt shalbe hole. And if the head of the
pintill be flushid *which* happenithe some
tyme throughe ylnes of his owne na-
ture sometyme throughe ylnes of
the womans nature weshe yt with
the saide drinke and yt shalbe
hole And if the hipps of a woomans
Member happen to be flushid take a
Lynnen clothe and wete them with
the said drinke / *probatum est.*/

2810 For priking of a nedle pyne or thorne
if the hole be closid vp. Take fair bultid
flowre of wheat. temper it with wyne
boyle them well to gether to yt be plaister
lyke then ley it to the sore so hote as
ye maye suffer yt. And it shall
open the hole draw out the fylthe and
cease the aking and heale yt.

For the dropsey take ij gallons of Fyne

2808 and] *rep.* and

2820 ale and a porcion of green broome, boile
them to a gallon, and let hym drinke no
other drinke to he be hole. Also For
the dropsey vse to eat and drinke
new milk./

FOR THE Megryme or forehede wark. Take
the white of dove dounge musterd sede
and pepper. bray them all together
and in braying temper yt with good
stronge viniger vntill it be plaister like
2830 sprede yt on a clothe leye it to the
forehead and temples but let ij fold
of lyne clothe be betwen thy forehead
and it For yt will burne and skalden.
Do this ij or iij tymes together on plaster
after an other. yt is somewhat painfull
but yt will make the hole by the grace
of god. *probatum est.*

f. 82r

For swelling brusing or ache Take
leaves of the read Rose and viniger and
cromes of the sowrest bread that thou
2840 can get, braye yt together and maik
yt plaister like lay yt to the sore and
yt shall sone be hole. *probatum est.*

For the ache or bolning of iointes. Take
read nettle croppes, burtre cropps and
cropps of celidonie, even porcions bray
them together and putte may butter
braie yt to it be plaister like, ley to
the sore *probatum est.*/

2850 For teters Take ij handfull of vnsle-
kyd lyme put it in a quart of fair
running water ij daies then take. j. vnce
of sal armoniack at the poticarie bray
it in a mortar strein *half* a pynt of the
said water into yt and labor yt with

2819 ale] HB. *ext. marg.* þe grene springs of | burtrie the grene bark |
strapped of *and* elecampana | Reed mync

the pestell to yt be fair blew then
take yt vp into a vessell and vse it
as ye nede yt and annoint the teter
therwith. *probatum est.*/

f. 82v

2860 To maike a seerclothe for wrinche or ache
take a quarter of a pownd of new wax
v. sponnefull of oyle olive thre rases of
gynger well parid and gratid melt
the waxe vpon a chafing dishe putto
the oyle and let them boyle then put in
thy gynger and an old lyne clothe about
vj days the yarde so bigg as thow wilt haue
the seerclothe and depe it well in the
lycour warme yt hote and lay it to the
patient and roule clothes about it to
2870 kepe yt warme. within xxiiij howres
yt shall mend him./

For ould sore or new take englishe waxe
Frankencense rosen or euery one like
muche, break them small melt theim
together and then strein them into a clene
vessell Then take orpyne mullayne
rosecampie valerian mowseare milliot
rybgras and brawood cut them and
bruse them a litle then Frye them
2880 in freshe may butter moderatlie and
after strein them and then blend
them with the foresaid gomme then
Frie yt well all together and then
Put in as much turpentyne as thow
did of waxe and stere well altogether
and put it in boxes to kepe and looke
thow take like much of euerie herbe and
like much of thy herbes and gomes
so nere as thow cann iudge yt by thyn

f. 83r

2881 blend] *rep.* then blend

2856 it] HA. *bot. marg.* as **2874** much] HB. *ext. marg.* mullein is an
herb | grewing lyke a | torch in a long *and* | fast lef and yelow flowred |
vnguentum | viride

2890 eye. And when thou wilt onimpye
yt spread yt on a linnen clothe and ley
yt to the sore. this trete hathe
healed an ould sore legg when many
other surgians and medcyns hathe
falid./

For a man that hathe lost his hering
Take the gall of a young pigg whiles
yt is warme and put it into his eare
an other *provid* better take the ynnere
2900 barke of a walnut tre stamp it strein
yt and put the iuce therof in his ear
whiles it is freshe and new and
let him lie on his contrarie syde yt
maie better rune into his ear./

For the Megryme take an herbe
callid chervell rye bread bay salt
and viniger stamp them and ley them
to the noddle of the head behinde.

2910 For a sore mowthe. Take woodbynde
marigoulds sage rosemarie a quantitie of
alome and a quantitie of honie seithe them
moderatlie in ould ale or water Then
strein yt throughe a clothe and therwith
annoint thy mowthe with a fether or
washe it softelie with a linnen cloathe
and if thou rub it vntill it blede it
is never the woorse but better../

f. 83v

2920 For the pestilenc a *preservatyve*. take
a handfull of rew, a handfull of sage
of vertew, a handfull of breer leves
that beareth the black brears a handfull
of Elder tree leves, stamp them together
and strein them throughe a clothe with
a quarte of white wyne, And putt
thereto a good quantitie of powder of

2903 yt] *rep.* it

2909 woodbynde] HA. *bot. marg.* Mary

gynger drink a good spoonfull euery
daie and the first daie ye shalbe savid
for xxiiij^{or}. houres and if ye take yt
ix daies ye shalbe save for a hole yere
2930 And if ye be infectid before ye drink
yt then take a spoonfull of water of
Scabies as muche of water of betonye
and a good quantitie of treacle of geen
and drink yt. For that shall dryve
it frome the hart And if the byle do
appere take elder tre leves bryere
Lever and mustard sede and stampe
them alltogether lay them to the sore
and that will bothe draw and heale by the
2940 grace of god.

f. 84r

An other aloes cicotryne, myr, bole armo-
Niak, safrone and calamus aromaticus,
of eche a half pennywoorthe maikē
them together in powder and menge
them with viij sponefull of triacle and
vj sponefull of clarified honye, kepe
yt in a close boxe and eat therof
morne and even as muche as a bean
euery tyme when the plage raynethe./
2950 FOR THE STONE taikē cow milk and goat milk
therof maik a possett with white wyne
and to a good drawght of that put the
iuce of xxx^{ti} leves of tyme go by the
ground and drink therof even and
morne. For a flint stone laid in that
drink all night wilbe consumid to
powder by the morne. And if thow
haue no goat milk yet prove yt
with cow milk./

2960 TO HIM THAT is infected with the pestilenc
after you haue gyven him the drinke
mentionid so: vij imediate preceden then
by a convenient space after which may
be as I suppose thre or iiij^{or} howres
gyve him this powder folowing which

f. 84v

shall cause him to sweate Recipe

[LATIN]

And if he

f. 85r

were hard of sweat I wold sethe

2970

barley in water and all hote laye

it in a lynnyn pockit at his fete

so hote as is convenient to maïke

him sweat. And in no wise let hym

put his head in the bed to sweat for

his owne breathe is very poyson And

if I did perceyve yt to nede I wold

also ley a pocket of hote barle againste

his hert but so that yt should not

touche him not his fete.

2980

Another for the same take a croppe of

sage woormewood ana herbe of grace ana

a hard onyon rosted half a penniworthe

of triacle i *pound* of sack, and beat the herbes

f. 85v

and onyons all together and strein the

triacle and all the said herbes into þe

sack and drink yt blood warme

and so let the patient take a sweat.

probatum est.

2990

Against an humour discending to the

eies. Take a good quantitie of flaxe

als lyme. sethe yt in a quantitie of

malvesey vpon a chafing dishe to it

be almoste waistid. then plaister

the flaxe to thy browes and temples

vpon thy forehead so warme as thou

can suffer yt in a lynnyn cloathe

and let the clothe be betwene thy

browes and the flaxe. *probatum est.*

3000

For the palace of the mowthe fallen

Take an vnce of clowes and pepper

small beten and strew them on the

2982 penniworth] HA. *bot. marg.* of

fore parte of thy head so that the powder
as muche as may be go throughe
thy here to thy scalpp and so
let it lie *probatum est*.

For the stone taikie iuice of an herbe
whiche growithe in corne feildes and
divers other places / and in may and
in Iune it hathe verie litle flowres
of purple colour and hathe tersells
hinging the sharp ends downward like
thre or iiij^{or} pynnes together knoppid at
the vpper end and some of them prickid
vpward, take of the iuce therof in somer
and of the powder therof in winter
and drink with ale *probatum est*. It
growithe about a foot highe the leafe
partlie like a tansey leaf./

f. 86r

For the fever tertian or quartan take
half a pinte of seck two sponefull of
musterd one sponefull of pepper not
ouer small beten and the white of a
new laid egg well swonged to oyle
and put all those together and drink
yt and lye and sweat by the space
of fyve houres iij or iiij^{or} tymes euery
tyme imediatlie before your fitt begyne
Also when thy fit commithe drinke the
iuice of Rosemarie and yt will
maik the hole incontinent Also drink
the iuice of Centorie stampid and
streynid withe wyne before thy fitt
and yt will cause it to be no fitt./

A Vomitt

f. 86v

The flowres of burtre stampid and
moxid with honie makithe a good and

3002 powder] *cancel.* be **3004** thy²] *cancel.* fleshe

3006 herbe] HA. *bot. marg. which* **3033** fitt/] HA. *bot. marg.*
Vnguentum

an easie vomitt. the receit is a vnce
 Take Iuce of burtre barke stampid
 and streynd with water to the quan-
 3040 titie of an egg shelffull or more
 drunken dothe the same./

For the scabe in the syde Taike
 viniger, reddes ynyons / rose leves
 or leves of a rose cake, boyle them
 well together lay them hote to thy bare
 syde after manner of a plaister do so
 dyverse tymes. vide infera seo:

TO STOPPE a womans flewre Taike the
 roots and leavs of dasyes ortherwise
 3050 Callid lannworts Stampe them and strein them
 with ould ayl, of that maik a posset and let
 her drynk that drink bloode warme to
 she be hole taik ix. at euerye tyme to maik
 your posset. Or taik shepe trindles boyle
 them in wyne viniger or good aile and ley
 a plaister to the navell and Reignes./

f. 87r

FOR YEKING OR SCABBES of the bodye taik
 grene ashe chatts and drie them in an oven
 when the bread is new taken furthe and then
 3060 put them on a hote herthe stone so that at
 lengthe the fyer may taik hould on them
 and burne them to ashes then taik ij pennyworthe
 of oyle de baye and a penyworthe of
 quick silver, blend all together with a convenient
 quantyite of the ashes in manner of an ointment.
 and scurre it well with a stick and thenn
 annoynt therwith the palms of the patient
 hands and then chaife his hands againste
 the fyer. Sturr it vnto thow can see none
 3070 of the quick sylver Sleas the quick silver
 first with fasting spittills And it is no
 matter althoughe thow taik none of the
 ashes vnto peraventure thowe muste annoint the
 whole bodie./

TO CAUSE A SORE TO ROTTE Taik milk haver

meale stamped and shepe sewet. Boyle all
together vnto it be plaister like And lay it
To a clothe so hote as ye can suffer yt but
taik not to muche of the haver meal For
3080 then will it be over thick before yt be
well boylid.

f. 87v

TO MAIKE A SEKE BODIE TO SLEPE Taik the white
of an egg swing it well in a dishe thre
nutmugge grated and one sponefull of
Rose water and one sponefull of woo-
mans milke maik therof a plaister and
lay the same to *your* forehead so that the
same may Reache frome the one eare
3090 yt vpon a chafing dishe, And speciall ye
lay it well to the temples Qiere pro
hog signo: fo:

FOR PORK ERRES Taik an hand napkin fill
yt with the dew of an ysop border weshe
therwith thy face let the weat clothe lye
on thy faice by the space of half an howre
Vse this and be whole. *probatum.*/ It
must be an ysop border in the Coulede
Froste.

3100 TO SLEPE Taik humlocks Stampe them
And lay them on your foreheade frome
eare to eare. *PROBATUM EST.*/

A CONSUMPTION FOR WANTE OF SLEPE
Thow shalt knowe it in this manner. when
the patient should slepe watche him and
thow shalt perceyve that his lighte doe lye
ydle and do not Care to do ther office
that is to say to draw in the breathe. And
therefore the patient when his lights have
3110 lyen ydle so long that nature can suffer
no longer then for want of breathe drawing

f. 88r

3093 napkin] *emend.* mipking **3108** to²] *alter.* do

3077 it²] HA. *bot. marg.* to

he startithe furthe of his slepe like one
 affrayed and pantith for want of winde
 lyke a man whose mynde were almost
 gone. *which* in Continewance of few wekes
 is redie deathe for want of slepe. if the
 patient can get no remedye And I
 haue knowen one dye. when I was younge
 and knew no help for it Thow shalt remedie
 3120 it in this manner Cut a good long shytt in
 the left syde of the patient cote and dublet
 even to his shirte againste his hert and left
 papp and lower even to his waist and also
 betwene his shoulder and a litle lower
 And maik a godd wyde hole that the aire
 maye *comme* well in bothe placs And in
 the day tyme also taik a pece of white
 hose lynning well weatid in water And
 lay it to his hert betwene his /shirt\
 3130 and his skyne but not so weat that yt
 Roue. but first the water being competently
 crushid furthe And when it is drie
 weat it again and kepe his neck baire
 And with as few clothes as he can suffer
 for could and when you haue ordred him
 this wise all daye. Then in his warm
 bed (where is his moste greve) let
 him haue the same weat clothe vnder
 his left arme againste his herte and
 3140 maik him lye as could as he can frome
 the myddle vpward *vize* in somer the shete
 onelie or eaven nakid and alwais kepe
 his neck bair And this short doctrine for
 this disseas is to doe all *your* diligence
 to maike and kepe could the harte and
 the lights For this disseas commithe by
 ever mucche heate and some ever mucche
 dalyeng with thy wise. qui prius scripsit

f. 88v

3117 can] *emend.* gan 3129 his²] *cancel.* shoulder

3133 baire] HA. *bot. marg.* and

et testio iij *perhuit*. / And vse neding as in
 3150 þe chapter folowinge

ANOTHER PRACTISE *which* I haue vsid my-
 self when I was lij years ould I began
 to waxe feble and sluggishe like as I
 should haue bene oppressid streight way
 with age In so muche that my leggs were
 so faint and feble and all my bodie so
 sluggishe namelie in somer *and*
 warme wether And also I had a
 distillacion furthe of my head into my
 3160 stomake and towards my longs or
 lights and my stomake not good and
 my meat so vnquist *with* me in so
 muche when I had eaten and drunken
 my meal at night my face would haue
 Glowid with the vnquietnes of the meate
 and my voice whors or harsh like as
 I had bene half dronken and *humours*
 oft falling into my eies *which* maid them
 oft sore So that I did looke to
 3170 lyve and continew but few years
 Therefore I devised this remedie I
 did taik a bur tre or elder tre stick
 (for of all other things or woode
which I provid that is the best) as
 bigg as my thombe almoste thre inches
 longe, the core being thursten furthe
 and did hould the same in my mowth
 betwene my teithe euerie night that
 the water *which* vsid to descend into my
 3180 stomake might rane furthe at my
 mouthe this stick had a mik in
 either syde. and would lay my
 head well asyde that the water
 might rane furthe more better
 Further euerie morning so sonne as

f. 89r

3156 so²] *cancel*. shugg **3169** did] *cancel*. lyve

3164 haue] HA. *bot. marg.* Glowid

I had washid my hands. I had a
 fyer bent or rishe and did knit a
 knot in the myd therof and did
 put it double into my nose moving
 3190 the knot a litle and a litle vnto I
 had nesid thre tymes and then
 as ofte on thother syde of the nose
 and with the said burtre stick letting
 The water furthe of my mouthe and with
 the said six nesis euerie morninge I
 did get my bodie lustie again And I
 giue almightie god thanks at the
 writing of this being lxxij yers ould
 I was lustie of my age as any
 3200 was in the citie where I dwellid
 and far more lustie then I was at lij
 years when I begane with the sayde
 practise And this haue I written
 in the praise of almightie god *which*
 gave me grace so to devise for my
 healthe and prolonging my life
 And also that other having occasion
 may do the like, and it is excellent
 good for any evill at the harte or in
 3210 the stomack or in the lights

 FOR THE MEGRIME an excellent practise
 Taik a quantitie of black sope and as
 muche of vnslecked lyme blended, to-
 gether to the quantitie of a walnutt
 Then taik a pece of glover lether
 as broad as the palme of thyne hand
 and maik a hole in the myd therof
 as bigg as a good pease, spred del-
 phin plaister vpon the lether and laye
 3220 yt to the temple of the head and leye
 the hole right on the *which* thow seist on
 the face in the ma/r\gen and herd vpon

f. 89v

3193 letting] HA. *bot. marg.* the

That hole laye the said lyme
 and sope and thrust it well down
 that yt may lye hard to the skyne *and*
 aboue on that ley an other pece of
 lether spred with the delphin playster
 almoste as brode as the first pece *and*
 the first pece of lether shevithe to fence
 3230 all the faice frome burning but onelye that
 litle hole and do like wise
 on the other syde of the head and let
 yt stand so *iiij^{or}* or. v. hours. And change
 the patient no to stryve with it although
 yt be painfull, for if he should stryve
 with it. and *perchaunce*: put the lyme
 and sope besyde the lower lether
 then yt would burne the patient face
 and maik a fowl ear, And after. v.
 3240 hours when the pain is gone taik
 the plaister awaie Then taik a
 clout of lynyen as broad as your hand
 and dipp it in the white of an egge
 well beaten and thre or *iiij^{or}* dropps
 of freshe butter molten and putt
 into the white of the egg and depe
 also in the same a good ball of lyen
 or fyne herdes and put it on the
 place *which* the lyme hathe burnid
 3250 and the said weat clothe aboue on
 yt, And so let it lye there so longe
 as the sope and lyme did
 or longer Then taik a pretie pece of
 glover lether as broad as a groat *and*
 spred on yt delphin plaistre and lay
 to the burnid place vnto it be hole *and*
 to be more *perfite* where to burne yt
 at the said litle hole Taik thy finger
 and feele the face about where thow

3223 the] *rep.* lay the 3230 that] *cancel.* burning 3251 longe] *rep.*
 the so longe

3251 longe] HA. *bot. marg.* as

3260 seyst the prick and let him
 chew and where thow *perceyvest* thend
 of his Chaw bone store best and a
 dimple in manner of a hole theyn
 burne yt, but breake yt not at the
 chaunge of the moone not at the
 full not vntill the signe be frome
 the head. And this practise is not
 onlye good excellentlie for the megrim
 but also for all other ache in the
 3270 head And also will do great ease
 to him that hathe the falling siknes.

TO MAIKE DELPHIN PLAISTER Taik of
 Rosen a pound of wax a *quarter* of shepe
 talow a *quarter* melt it well toge-
 ther and stur it well vnto it
 then taik it frome the fyer
 and when it was somewhat kelid
 put a *quantitie* of turpentyne *and*
 sturr it verie well and after cast
 3280 yt into a bowle of fair runing water *and*
 maik it in Rolls and wrethes and kepe
 it for thy vse This plaister is toughe and
 will stick herd So that it nedith not of
 binding on. IT WILL DRAWE AND HEALE./

f. 92r

For the gowte Taik the roote of herbe
perposer id est water cresses. stamp yt and
 strein yt and it wilbe like gelie and
 annoynt the ache therwith And it is
 a *mervaille* if euer thow haue yt again
 3290 FOR THE CANKER in the mowthe taik sage
 and as muche of pimpernell and *half*
 as muche of parcelie Shred them
 with a knife and stampe them small
 put therto a litle burnid alome then
 taik it vp and drie it then

3260 the] *cancel.* preist 3294 then] *rep.* then

3275 it²] *lac.* 3279 cast] HA. *bot. marg.* yt

beat it into powder. this powder
hathe bene *previ*d and never failithe.

FOR THE could palsey. Taik heyri*f and*
lavander like much*e*, boyle them with
3300 freshe butter, vnto half be waistid
Then strein yt, and therwith annoynt
the patient wher he nedithe against
the fyer ones or twise on the daye
probatum /

For the Goute Taik a handfull of doves
dounge a handfull of Crommes of browne
bread a pynte of viniger oil or more
of goodlie black sope put all over
the fyer but let yt seithe but softlye
3310 Then strein yt throughe a clothe Then
sprede on a clothe and lay it on the
sore *probatum est*

FOR THE GOWTE Taik lyn sede boyle
it in runing water vnto it be tender
Then taik*e* iuce of henbane and herb
benet of eche ana. Taik ij *pounds* of shepe
Talow. medle all the said matters well
together vnto they /be\ plaister like and vpon
a clothe lay it to. This medcyne hathe
3320 bene *provid* many tymes and hathe *donne*
away the pain and the swelling in a
daie and lesser.

FOR THE GOUTE Taik floore of oots and
a litle handfull of litarge small
ground and boylid in fair runinge
water vnto it be plaister like and
hote as ye may suffer lay it to þe
sore. This medcyne hathe put away
the pain and the swellinge in half
3330 a daie.

VNGUENTUM VEIN MECUM Taik*e* borage
f. 93r

3330 daie] HA. *bot. marg.* vnguentum **3331** borage] HB. *ext. marg.*
vnguentum vein mecum

femitorie selven, scabions the leves, eli-
campana red dock the clote bothe leves
and roote of euerie one ana bruse them
well together and let them
lye xi daies Then put therto theyr
weight of swyne greace boyle yt
and streyn yt and kepe it in boxes
This oyntment is good for the iche *and*
3340 the scabb, for the morfew, for
scaldinge *etc.*

FOR SWELLINGE OF LEGGS by dropsie or other-
wise Taik mallows and seith them
in Runing water vnto they be tender.
Then taik them furthe and lay them on
a bourde and let the water rune away
so clean as ye can Then taik a *quarte*
of milk and seithe the mallowes again
in the milk And as it dothe seithe
3350 strew in oten meale a little and a
litle vnto yt be plaster like Then
lay a plaster therof to the leggs
of the patient. *probatum est*

FOR ALL MANNER OF SWELLINGS in þe knees
Taik rew and lovage stampe
theim well and meddle theim with hony
and frye them together and laye a
Plaister therof /to\ the bolne knee as hote
as ye can suffer. or a hote rew toorde / or
3360 rubbing them with oyle or turpentyne

f. 93v

FOR BOLNINGE OF THE FEETE Stamp burtre
otherwise callid elder tre bark and
lay to the fete

For a broken legg Taik and ioine the
boons together even and iustlie Then taik
olen *Rosanum* and temper with yt. bole
armoneak then plaister yt on lynen

3335 them] *cancel.* tope

3357 a] HA. *bot. marg.* plaister

clothe and lay yt to the legg./

FOR ACHE WHERE EUER IT BE. Taik reade

3370 wyne lies and new ground musterd
of the best ye may get and the best
leven bread ye may get maik therof
a plaister and lay it where the
grevaunce is and yt shalbe easid
anone on WARRANTISE./

FOR THE SCIATICA. Taik gall of a

bull a *quantite* of good woort and boile
them together till they Comme to a pynte
Then put therin a pynte of stronge
3380 vinigar and a vnncce of Frankensence in
powder *half* a pound of honie boyle them
all together again to yt be thick Then
lay it vpon a pece of lether or red

Laishe, and sew a clene lynnne clothe
therto and lay yt to the hooke bone as
warne as ye can suffer and let it lye
their ij or iij daies and ye shalbe
whole but then kepe well thy plaister
And if any other man nede yt then

3390 warme yt and lay yt to the sore
And thus may ye lay it to the sore
And thus may ye lay one plaister
to many men PROBATUM EST

FOR STROKES blew and not broken Taike þe

iuIce of wormewood clarified honye
and new wax and bores greace and
Comyne of euery one like mucche in weight
Frye them all together maike a
3400 plaister and lay to the sore And it will
aswaige the bolning put away the aking
and also the blacknes.

A Restorityve taik ij *pounds* of cappid daites

3370 musterd] *cancel.* sede

3375 anone] HA. *ext. marg.* warrantise 3383 red] HA. *bot. marg.*
laishe

f. 94r

weshe them in good ale taik out the
 stones and the pithe within and then
 cut them small and stampe them till
 they be as toughe as wax. thus taik
 a quarte of honie clene clarified *and*
 cast the daits therin stur it well to-
 gether vnto the daits be dissolvid
 3410 in the honie Then taik *half an* vnce of
 long pepper and of maces and cloves
 and nutmuggs of eche *half an* vnce well
 Beaten to powder Then put the
 honie and dates vpon an easye fyer of
 coles and let yt seath eassilie and euer
 sturr easylie And so be casting in thes
 powders a litle and a litle vnto all be
 in but alwayes stur fast and so let it
 sethe till yt be thick Then taik yt from
 3420 the fyer and strew in it half an vnce
 of powder of ginger and stur it well
 together Then put it in coffins as ye
 charede quinchies and eat therof
 euerie day first and last And be the
 neuer so low brought with sicknes and
 yt will restore him again in short
 tyme And this is surelie provid./

f. 94v

FLOS VNGUENTORUM Take *half a* pound of perrosen
 virgin wax frankencens of eche a *quarter*
 3430 mastick *half an* vn/g\uce sheps talow or goats
 talow a *quarter*, of camphere ij *ounces*. melt
 that is to be molten and powder that
 is to be powderid boyle it on the fyer
 and strayn it throughe a clothe into
 a pottell of white wyne and boyle
 the wyne and all together and let it
 kele a litil then put in a *quarter* of
 turpentyne And stur well alltogether
 till it be could This nitreat or oint-

3413 the] *rep.* put the

3412 well] HA. *bot. marg.* beten

- 3440 ment is callid flos vnguentorum
And it is good for ould wounds and
For new, for among all other intreats it f. 95r
is moste clensing and sowing and engen-
dringe good fleshe And it healithe more in
vij dayes then any other intreat will heal
in a monthe It sufferithe no corruption
in the wound nor evil fleshe to be
engendrid It is good also for the heade-
ache and for wynde in the brayn And
3450 for an Impostume in the head and for
bolning of the ears or chekes and for
Sawcefleme for synews that ar cerven
or starke of travell It drawithe Rustie
yron, therin or what thing that is
in a wound, It is good for byting or
pricking of venemous beasts It rotythe
and healithe all manner of boches *without*
sore It is good for feasters and cankers
and noli me tangere It drawithe
3460 out all manner of ache of the lyver *and*
of the splen and of the kidney it brekith
impostume It is good for ache and for all
manner bolning of pryvie members of
man or woman It is good for bollinge
dropsie of all manner members of man
Also it cessithe the flux of menstrews
and emerods and healithe yt, It is prin-
cipall to mann in all things that akith
or gnawithe in ioint fleshe or synoue
3470 and speciallie to make a sere clothe
to heale all manner diseases and sores
aforesaid and many other moe, For
It healithe and searchith most both outward f. 95v
and inward of all other oyntments
This was written and Casten into a re-
cluse at the Rode hill in almaine who
wrought many marvells therwith and
never vsed other and found euer trew

3441 and] HA. *bot. marg.* Sore 3472 For] HA. *bot. marg.* yt

and good,

3480 TO staie vometing vse to drinke the iuce
of Rew warme with white wyne and
suger even and morne or eat thre
leues of rew at morn with suger and
thre of Sage at even

FOR vexinge or hickop drinke the iuce
of rew with ale and suger,

For him that hathe no talent to meat
Taike Centorie Seath it in aile and
drink it warme iij daies together
3490 and it will purge the stomak and
the brest./

FOR THE EIES Taik smallage fenell rew
vervain egremoyne betonie scabions ava-
nce hound stomige ewfraice pimpermell
and sage, Still all together with the
vryne of a man childe and fyve
grayns of frankencence put one
dropp of water in his eye when he
goithe to bed and he shalbe hole
3500 And haue his sighte And if he
haue lost his sight. x. years before this
water will recover it again in xltie
days, Temper the iuce of egremoyne
with the white of an egg and with a ball
of flax or fyne herds let it lye on
the eye when thou goist to bed And if
therbe any eveill blood or matter in
thyne eyne it wilbe hole without dout
Also taik the gall of an hare and
3510 clarified honie and with a fether laye
it on the webb in thye eye and it will
break it within thre nights and Save
thy sight (ON WARRANTISE) And if the
webb be ould taik the gall of an eyle
and drie it in the sonne and maik

f. 96r

3499 hole] HA. *bot. marg.* and

powder therof and put in *your* eye
 Taik betonie the leaf or root and
 drink iuce therof And it will put
 awaie the watering of thyne eye,
 3520 Taik an ounce of lapis calaminaris
 and an vnce of Totie Allexandrin
 brey theim. ix. tymes and euerie tyme
 quenche them in white wyne or rose
 water then grend them small with
 capons greace and annoynt thye eie
 or put of the powder in rose water
 and drop into thyn eie with a fether
 And it shall Clarifie thy sight marvelous
 well./

3530 FOR PAPPES that be Rankelid and aken
 Tayke ground salve and Casie washe
 them and drink the iuce with stale aile
 first and last Then Taike senvey sede
 and stamp it well in a morter put
 therto the third parte of Crommes of
 wheat bread then cast therin drye
 figgs honie and viniger as the quantitie
 of the sore requirthe And the more
 that thou castes in the drie figgs *and*
 3540 honie the shapper is the plaister *and*
 the senvey, but the more bread *and*
 vinager thou casts in the febler is
 the plaister I Counsell that thowe
 set muche by this plaister for it hathe
 bene ofte proved but lay it not to all
 Sores.

f. 96v

FOR a Wound healid without but not within
 or for priking of a thorne or nayle
 or any other yrone althoug it be rusty
 3550 Taik stonecrop mowsyer hilwoort *and*
 betonie and drink the iuce therof
 with ale and it will drye it oute
 This is provid often tyme for truthe./

FOR an ould sore and specialle for
 mormall Taik the powder of brent

oyster shells and a goode *quantitie* of
 angell twaches and stamp them with a
 good *quantity* of frankensence and
 Medle the foresaid powder withall to
 3560 it be plaister like sprede it on a lynn
 clothe and lay it to the sore. *probatum* /
 For deafnes taik an onyon and maik
 a core therin and put it in a quntite of
 oyle debaye and a *quantite* of franksence
 and a *quantity* of aqua vite and set the
 onyon in the ymbers and when it is
 rosted wringe it throughe a cloute
 that is fyne and put a drop in the
 ear and let that syde lye vpward
 3570 and so est some in the other eare if
 nede be.

f. 97r

FOR THE STONE, Taik Allexander sede
 gromell sede colliander sed *percelie* sede
 saxifrage fyne tyme *ana.* put therin
 \\ a race of ginger maide into //
 fyne powder and mengle them well
 together and drink therof withe
 malmesey or staile aile or bloodwarm
 and if ye vse to drink therof euery
 3580 *quarter* of the monne it will do the
 better, This hathe done many man
 good without failie,

FOR THE MEGRIM Taik a good *quantitie* of
 vervyn sethe it in thre *quarts* of water
 vnto it be almoste thick then stamp
 it and maik it in plaister and lay
 it warme to the temples but lay it wel
 backward to the noddle *probatum est*
 chervile stampid with *crammes* of Rye bread
 3590 and vinager in lik *manner* laid to, dothe the
 same./

FOR GOINGE OUTE OF THE FUNDAMENT Taik
 frankensence Sethe it in water and

f. 97v

3558 and] HA. *bot. marg.* medle **3591** same/] HA. *bot. marg.* For

weshe thy fundament therwith and help
it vp with thy finger. AN OTHER strew
powder of herts horne./

FOR CANKER IN THE MOWTHE Taike
woodbynde, and planteyn of ether
a handfull bray them small then
3600 taik a pinte of eysill an other of
water a quantitie of honie an other of
allome boyle all together then streyn
it into a glass and with this water washe
thy mowthe with a lynnene clothe on thy
finger or els bound to a stick end and
Rub herd and it shall flea the canker
and the stinking breathe and save
thy tiethe frome rotting, ON WARRANTISE.

TO BREAKE a woomans flowres Taik
3610 and sethe fether foye in good ayle
frome a pottell to a pynte withe
a good stycke or two of lycores
and drinke fastinge ix dayes
thre spoonefulls at once. and
madder wyll do the same
without Fayle.

FOR THE AGUE OR PESTILENCE Tayke thre
spoonfull of dragon water one spoonfull
of vinager the quantitie of a nutt of
3620 Triakle and warme them and let euerie
one not infectid drinke thre spoonfull
next ther harts therof thre mornings
and nether eat nor drink thre howrs
And by gods Grace they shall scape

f. 98r

For the Ague tertian or *quarten*. Fyrst
on the good daie drink fasting white
wyne In the *which* hathe bene stepid all
the night before wormewood and
for fault of wyne taik ould aile And

3627 all] *rep.* all

3616 Fayle] HA. *bot. marg.* For

- 3630 on the eveill daie maik potage with endive
 burage buglos and Agremonie of eche
 like muche, of the leavs and Roots of
 Succorie the pithe taken out a hand-
 full, and ij or iij Rots of read fennell
 the pith taken out bynde the herbs
 together and let them sethe well then
 taik them vp and strew them into the
 potage and eat therof on the evil daie
 two howrs before thy fitt And if thow
 3640 Cannot get all the said herbs yet prove
 with suche as thow can get do so in all
 medcynes and salves. An other Taik
 a pynte of malmesey boyl half a way
 Then taik pepper and graines and
 A penny woorthe of Aqua vite and the
 iuce of the inner parte of Cellertre
 bark and of the wallnut the bark in like
 manner and put all into malvesie and
 drink it a litle before thy sitt do *comme*.
 3650 walk half an howre after Then lye the
 downe and hap the well that thowe
 maist sweat /

f. 98v

For the Strangurye

CAMOMILE COKILL PARITORIE
 LETICE MALVES STOLOPENDRIA

- Seithe theim, and as hoote
 as thow can suffer ley them
 to the bottome of thi bellye
 thi codds yarde and so vpp to
 3660 the Reyns And when yt is
 coold, heat it and lay it to
 again or baithe the with
 it in a great hogesheed. /

TO STOPP A LAX Take powder of
 Synamound and of a pomgarnet skyng

3646 of²] *rep.* of

3644 and²] HA. *bot. marg.* A

or of the kynells of it and boile in
new milk, and eat it milk and all,
And withe bread if thow list.

3670 TO STOP BLEDING AT THE NOSE let the
patient take twoo hevie weights in
ether hand one / And with them let him
walk vp and down the howse and he
shall cease bleding streight way.

FOR THE TOTHE ACHE Stamp half a
heed of garlik, and bind it to the
bare wrest of the contrarie Arm
on the In sule of the wrist (but my booke
saith not on the contrarie arm but on
3680 toothe mark is on) And let it lye there
xij howrs And be Assured it is vere
goode /.

f. 99r

FOR THE STOONE OR STRANGURIE
a singuler medycine And namelye
when he can make no water Take
the Iuce of Alexander an egg shell full
and boole it in a pinte of malmesey
And give it the patient to drynk while
it is warme And he shall make water
3690 and voide the stone incontinentlye
without faile *you* may burne yt as *you*
do malmesey if you list.

FOR ONE THAT IS FRONTIKE Take the
herbe called Chervill and seithe it
well in malmesey. And ley it warm
to boothe temples of his heede And bind
it ouer do so often tymes And to the nodle
behind the heede.

3700 FOR TOTHE ACHE Take the Inder Rynde
of burtrie barke otherwise called elder-

3678 on²] *rep.* on

3678 on²] HA. *bot. marg.* the

tre with Absinthium. *id est.* wormewoode and
pound theim to gether in a mortar
and then if the toothe be not holed rubb
the gumes And if the tothe be holed put
in a pellet mayd of the same and change
it often and it shall ease the as it
is thought And by many it haith bene
practized and sownd good /

A GOOD AND PERFIT PURGACIONE Take

- 3710 a *pennywaight*. of the powder of Ceney Alexander
corriander seedes xv *pennywaights*. Aniseeds liquorous ginger f. 99v
Sinamound mace Ana vi *pennywaights* of everie one
2 groots weight all in powder, white suger
2 vnces *and a half*, put all thes into a pinte
and a half of oold aile of wine mesour
Then woorke all to gether the space of an
howr frome one pot to another And
let it stand almost an howr after this
maner doo it thre tymes, And then
3720 streane it And drink it milk warme
And if you will haue the drink pure
let it rune throughe your strener easelye
bi it self / And if you woold haue it
woork earnestlye and surelye let it seith
vpon the fier 2. walnuts and then stream it

ANOTHER MOORE EASIE Take. Suaci. Ros.

- 2 *pennywaights*. diacatholicon a *pennywaight*.
diasenionum a *pennywaight* et confectio
hamek a *pennywaight*. Quiken it with
3730 diagredion This will cause abowt vj
stooles And if thow bidde the poticaire
to quiken it well with diagredion it
will cause viij or ix. And the dooble
reecat will cause dooble so many stooles

3725 walnuts] *emend.* walnus

3710 Alexander] HB. *bot. marg.* Coriander **3730** diagredion] HB.
ext. marg. diagredion the best | is shynyng *and* blakk | *and* if you likk it
with | your tong yt will a foome tarie on it | ther is also white | but if it
bitter | it is nought.

The poticarie will bue the first receyt
 for vjd And the dooble for xijd you
 shall take the first receyt with thre
 sponefull of ale warme And the dowble
 with vj. sponefull / Best receaving is in
 3740 the morning fasting And to eat nothing
 vnto it haue wrought And then to get
 a morsell of good meat, For when a man
 is fasting there is nothing for it to work
 on but the choleryke humour And kepe thi
 chamber and the hows al that days And take
 regard to the Almynak for the day of rece

ANOTHER Take a sponefull of licores
 well beten And a sponefull of aniseedes
 And a sponefull of powder of Ceney, boil
 3750 all in a pint of good ale vnto a *quarter* be
 waisted Then streane it and drink it
 fasting And it causethe a good lax And
 put some suger to it if ye will make
 the drink moore pleasant And this
 drink thow may kepe in a glas And
 take ij or iij. sponefull everie day after
 dyner, or what tyme of the day you
 will and it will kepe you soluble, but
 if *you* will haue a purgacione, *you* must
 3760 drink a good draught.

FOR THE WORME a *perfit* remedie take
 a yong sooking whelp cut of the head
 and leggs. open his belie, doe so warm
 and spedelye, as thow can bind it to the
 place of the woorme with the bowells And
 so let it lye bi the space of
 then take it a way And ley to it another
 whelp. And so another vnto tyme thow
 find noo wormes in the whelp bealye
 3770 for the woormes will coome forth into
 the warme fleshe of the whelp. And
 when thow hast laid twoo or thre tymes

3746 rece] HB. *bot. marg.* Another 3766 of] *lac.*

and doest se no woormes coome forthe
 Then heale it withe a plaister made
 of wheat flowr honie, and yolk of an
 egg / And this plaster will keep it open
 a good space and then will it heale / the
 woormes ar as bigg as good pynus and
 vere sharp Cut away a litill of the flanks
 3780 of the whelp. that the warme bowells of
 the whelp may better coome to the soore

TO KILL WARK to ripe a sore to breeke
 it and draw it for the stooone in the bak
 or any other Ache or bruse or stiche
 Take cromes of a Rie crust or of stale
 rie breede and butter Runnyng water
 and viniger, and seede of comyne if thow
 may get it boile all together vnto it
 be plaister like And ley it to thi bakk
 3790 liske and codd warme And if thow
 will haue it to doo awaie the bolning
 and wark without breaking then take
 in vineger Also thow may put in a
 litill Aqua composita for the plaister
 to the bakk

TO MAKE AN EASIE VOMITT take the
 flowres of burtrie otherwise called elder
 tree stamp theim well And blend them
 with honye And eate therof

3800 TO RESTREIN A VOMITT Take vere sower
 leuen mixt it with Iuce of mynt and
 vineger make therof a cake a litill longer
 then broode And all hoote ley it to the
 stomake almoost frome the navill vp-
 warde And I woold weete it ouer the iner
 side (being first clovey) with the said
 Iuce and vineger And if you mix some
 rosewatter therwith it will do better

f. 100v

3781 soore] HB. *bot. marg.* To **3787** and¹] HB. *ext. marg.* This is
 good also | for a soore pap | if thou anoint | the soore also with | oile of
 camamill

3810 And ye may put a linnen cloothe betwene
the stomak and the plaister And renew
it iij or 4. tymes in the day. And make
your licour and the Inside of your cake
hote at everie renewing / or take hoggs
dunge namelye that sedith on Acornes or
serue ruts stamp it small and seith
it in vineger vnto it be plaister lyke
And then all hote ley it to the stomak
And renew it as before And feede the
3820 patient with deintie meets and light of
digestion, and *comfortatyves* as *succarum ros.*
And let him often chew Synamond and
eat vere litill meat at ones.

f. 101r

FOR THIK WINDE called Asma the lights
of a fox dried on a hote stoone and made
into powder and blended with wine or
sirop of ysopp is mervalous goode to be
dronk or eaten first and last./ Also take
Savyne j *pennywaight.* butter iij vnecs / hony iij vnecs.
and this is good for the same if you eate
3830 it fasting.

FOR THE STICHE in the side or any other
place Take a Rie tooste and ley theron
triacle And as warme as may be
suffred lay it to the bare place of the
stiche and bind it fast therto./

FOR THE GOWT or any other wark
take blak Snails Slitt them and put
them into a linnen bagg. And sprinkell
amonges them a lytill bay Salt Then
3840 hing the bagg over a cleane vessell to
receave the oile that droppith frome
the Snails and anoint the gowt or
any other wark therewith

FOR THE HEAD ACHE take great woress
stripp forthe of them all the *superfluitie*

3817 stomak] HB. *bot. marg.* And

within them then Stamp their skyns
and ley theim plaister like to the heed /

FOR A SOORE PAP Roost Sorell in
ymbres lapped in a doken leaffe or twoo

3850 And put that sorell as hoot as it may
be sufferid to the sorest plaice and it
will rype it and break it Then plaister
vpon it ould dast or barme and it will
drye and heale it

f. 101v

FOR THE HEADE ACHE vide cap ij preceden

FOR THE STONE VNCONFIRMID whiles it is yet
but gravell Taik iuce of garlik and
of Sage and vse to drink it with goode
ould aile.

3860 For the tothe wark taik Rosemarie
and with your knyfe chop it to powder
blend therwith as muche pepper maik ther-
of a button of lynnyn Clothe heat the
button hold vpon a stone then weat it
in honie and as hote as thow can suffer
lay it to the sore toothe but bewise lest
therwith thow scalden not thy gooms

3870 An other Taik aqua composita and burnt
allome boyle bothe together in a sawcer
over a chafing dishe. Taik also lynt
and boyle therin and put that lynte
so hote as thow can into the tothe and
so twise or thrise

FOR THE AGUE OR AXES Taik lyverworthe
ground yvie leaves prymerose roots
Rosemarie tyme and sage of endry
A quantitie a Crust of leuen breade
vnbroken a penie woorth or more of
suger candie boyle theise together
3880 in strong ould ayle Stamp the
herbs and Roots Before they be boylid

f. 102r

3850 may] HB. *bot. marg.* be **3876** endry] HB. *bot. marg.* a

Then strein all together and drink
it oft luke warme lay leaves onlie
boylid and drunken as is afore said
is good for the same and therfore
it may be addid to the sore and herts
verie well as it semeth

3890 For a sore mowthe Taik Sage chop
it small put it in honie and roche
allome boyle it on the fyer and so
maik therof hard Rooles like lectu-
arie put as muche therof as a
bean in the patient mowthe to it
melt and after he hathe houlden
it in his mowthe a good spaice
let him spitt it furthe and he
swallow some down it will not
hurt.

3900 FOR a sore pap that is bolnen hard and
akithe taik allome and water boyle
them on the fyer to the alome be
moltid then put therin a lynnenn
clothe and lay it hote to the papp
and do so often./

FOR A SORE PAPP Taike verges and
alome and freshe butter a litle, and
a litle honye put all theise in a pan
and with wheat flowre maik as it were
a hastie putten and lay it /to\ the pap
3910 probatum est

f. 102v

For a sore legge Taik tyme and Rosemary
lavander erbe graice sage and percellie
Chopp them verie fynely Then tayke
allome a good quantyite goats grece
or boars greace a litle white copons
a litle quick sylver if it be a very
ould sore yt will heale yt and if
the woorm be ther it will heale
yt by the grace of god./ probatum est/



3920 For the eye having a webb or *perle*
 or other sore Taik a hard egg and
 cutt it in the midds whiles it is hote
 Taik out the yolk and in the holowe
 of the white put fyne suger and
 presse the egg and suger hard together
 and ther will oyle come out therof
 blend therwith the gall of an hare *and*
 with a fether put the oile and the
 gall in the sore eye.

3930 FOR A SCALDE HEADE Taik black snaylles
 put them in a clean ethern pott put
 to them a handfull of salt and in two
 Or thre dayes it will turne to oyle then
 streyn it throughe a lynnene Clothe and annoint
 the head therwithe ones or twice a daie
 PROBATUM EST for it will dry it to a skoorf

f. 103r

[LATIN]

FOR THE WILDE FYER in the face or any other
 plaice of the bodie, It will first be
 3940 read spotts and it will brust out in tyme
 to white wheales litle blaynes and will
 ytche extremelie so that the patient can
 not suffer his hands frome rubbing and
 it will burne verie mucche and it tyme
 it will sprede verie broad and if *comme*
 round about the bodie the patient shall
 be in danger of his lyfe The remedy
 therfore is this first taik a collop of
 hung beif that is all fatt and frye it
 3950 to sayme and put it in a broken cruise
 or pott and taik a handfull of the
 herb callid wyld fyre grasse as mucche
 as thow haist nede of and the herbe
 is to be founde in the scubbe feild also
 taik a quantitie of brymstone and beat

3921 Taik] *cancel.* yt

3920 For] HC. *ext. marg.* Sore Eyes 3932 two] HB. *bot. marg.* or

it to powder and vj cheyves of vnset
 leiks or more if thow haue neide
 First washe the hearbs and taik a
 frying pann and put it in the sayme
 3960 of the beif Then taik the herbe callid
 wild fyer grasse and Cut of the lower
 Roots of the same and Chopp the herbe
 verye smalle and frye it verie muche
 in the same of the hung beif and set it
 by till it be almoast Could then tayke þe
 Chyves of vnset leiks and lay theim on
 a fayer tyle stone againste
 the fyer to they be dryed to powder and
 tayk the pouder of brymstone and put
 3970 it into the same of the beif when
 it is almost coulde for els the brym-
 stone will run in lumps lyke litle
 gravell stones, The powder of vnset
 Leiks thou maist mull betwixt thy
 fingers into yt And whan thow haist
 Done thus put it into an ould cupp for
 thy vse; and whan thow haist nede of
 yt taik a litle of it in a Sawcer and
 warme it on the Coales and taik a
 3980 fether and annoint the patient therwith
 and bynd a Clothe about the sore but
 never shift the Clothe to it be hole
 for it may not haue white clothes
 for it will maik the sore verie
 Rawe but thow maiste bynde a white
 about the ould if yt be on the bodye
 Thow maist not shift the patient shirt
 till it be whole for it will be longer
 in him al nige and will do it muche harm
 3990 This oyntment is pretiouse and by the
 help of god hathe healid verie many
 which haue bene gryetlye venemid

f. 103v

f. 104r

3966 on] *cancel.* the fyer **3969** and] *emend.* of **3989** him] *emend.* he

3960 callid] HB. *bot. marg.* wylde **3990** the] HB. *bot. marg.* helpe

bothe in the face bodye and also on the
head. *probatum*:

AGAINSTE THE HARTE BURNE Drink a spone-
full of vinager for that is a very good
Remedie and well proved

FOR A COLLICK WINDE about the Stomake
Taik iiij or v pecs of ginger thyne Cut
4000 and Swallow them so whole as ye can

For the woorm Taik the herb callid
Swine gers It growithe in euerye
paisture ground by tustes and hathe big
iaggid leaves and towards the latter
end of sommer it puttethe vp a stalk
of half a yeard long and hathe in
the topp therof many litle yelow flours
And it is callid swines gers bicause
if yt be small choppid and gyven
4010 in ther meat to swyne they are mesell
it will hole them Take a *quantitie* of this
herbe chop it small then seithe it well
in milk and oten meale and as warme as
the patient Can suffer Lay it onn the
plaite of the woorme and let it lye ther
ix dayes and by that tyme will the
woorme be dead Then heal it vp with
may butter and Iuce of woodbynde
well mixid together.

4020 FOR THE ICHE Taik dockan Roots but
let the Chores be taken furthe and
fry them or seithe them in freshe butter
or swynes greace And therwith annoint
thy bodie and if thow put therto powder
of brymestone and a litle quicksilver
it is better,

f. 104v

FOR THE SHOWLDER OUTE OF IOINTE Taike a
ladder of vj or vij Rouges long knock
furthe the lower moste ruug but one
4030 put in the holes therof a wymble
Then pull of the patient Clothes frome



his arme or els ripp them of to his
bare arm then Cause the patient to
put his sore arme over the vppermost
roug of the ladder but lapp that roug
first iiij or v tymes about with a towell
for saving his arme from hardnes of
the Ruug being hard vnder his arme
hole and if the ladder be over highe
4040 let the patient stand vpon a stoole
or sit vpon a bed Then taik a towell
and knit the one end about the arme
hard aboue the elbow surelie that
the knot slipp not Then put the
other end of the towell about the
wunble and spit vpon the wunble *and*
towell that they may better cleave
together without turning aboute and
One stand behind the patient a litle
4050 higher then the patient and let an other
turne the winble about leasurelie with
the towell and let him aboue somewhat
gwynde the bone forward and let him
at the winble turne still vnto it
be Come into the ioint *which* you shall
lightlie *perceyve*, Then annoint it
with freshe butter or somethink to kepe
it sowple.

f. 105r

4060 For the ytche and scubb Taik swines
greas pepper small beaten and quick-
silver blend them well together vntill
you Can se none of the quick silver
and that will heale a skald horse
therfore I trow it healithe./

FOR THE STONE or that Strangurie when
you cannot maik water Taik the maw
of a Caponⁿ cut it and scrape furthe
the filthe therof then taik the ynnr
Rynde or skyne therof drie it *and* maike

4048 and] HB. *bot. marg.* Let

4070 it to powder Then after the wise hath
maskid all her drink heat a good
porcion of water and Cast it on the
graines and let the patient put of his
Clothes and get him into the mask fatt
so hote as he Can suffer and let him
drink the said powder with good olde
Ayle and so let him hathe him self
well in the said hote graines Or
ye maie cause him to baithe him self
4080 in a tunne or hoggshead in fair warm
water wherin saxifrage, grandei or
other herbs. good for the stonne is
sodden This is a verie good expe-
rimente for the stone

f. 105v

A drinke for staing of the
Strangurie

Taik a handfull of knott grasse and a
handfull of vervyne and a handfull of
bursay pastoris and purselyne way-
4090 brye and banwart ana and a good
stick of Lycores and put all theise
into foure quarts of water and boyle
it vnto half then strein the water
frome the herbs. and then Taike *a dozen pennywaights*
of Cocomber sede and as muche of
millon sede goord sedes and sitrion
sedes ana and stampe them together *and*
then strein them into the said water
and drink therof even and morne
4100 *half a pynte*

FOR HIM THAT CANNOT PISSE maie a
posset of white wyne Taike of the
Crudd Then taik the strongest onyons you
can gett and slyse them and boyle them in
the posset drinke tyll they be verie softe
and gyve it the patient to drink as hote
as he can suffer it drinke it and this ys

f. 106r

4076 olde] HB. bot. marg. aile 4102 the] HB. bot. marg. Crudd

verie good and experimentid./

FLOS VNGUENTORIUM

- 4110 Take *half a pound* of Rosen. *half a pound* of parrosen
virgin wax v *pennywaight* and frankensence of ether
a *quarter* of a pound. ij drammes of Comfere
an vnce of mastick of harts tallow a *quarter*
of a pound maike powder of them that
will powder and Cast it throughe a
serce Then melt thy other things and
powder together when it is molten taik
yt frome the fyer and then put therto a
4120 *quarter* of turpentyne a litle and a litle
or els it will fle over the pan and
stur it well together Then cast it into
a pottle or *quarte* of white wyne and
boyle it well and aboute one daie after
streyn it throughe a Canvas Clothe And
put it into boxes to kepe This salve is
good for all sores for it will bothe clens
and heal And it is good for sinews stray-
nid or spronge and also for any warke
yt will break and heale an impostume or
4130 canker It is said to be good for impostume
of the splen or lyver Also it Restraynthe
superfluitatem menstrin if it be implastrid
On the woomonnes navell. vide *supra*.
Diagredion Vsule Turbith Rubarb
eufor vij mastice agaric ana ij *pennywaights* Aloes
Cicotum ij *pennywaights* Those beaten to powder
temper with some kind of wyne maike
pills therof as grete as benes taik
one when thou goist to bed lap it in a
4140 possit crudd and swallow it hole It
will cause the to haue before the
morning thre or iiij good stooles./

A BLACK PLAISTER good for new Sores

4120 and] *cancel*. it

4132 implastrid] HB. *bot. marg.* on

or ould or for a bruse and oft provid
 Taik a pound of white lead small beten
 and boultid as ye would do flowre then
 Taik a pynte of woole oyle iput in
 your lead and sethe them on the fyer
 vntill it be black and when it is boylid
 4150 enoughe it will rope or drop a drope
 therof on a stone and if yt be harde
 when it is could it is sodden ynoughe
 or els not *probatum*. I think this is neyr
 bond *which* is aboue written

FOR AN OULDE SORE Taike an handfull of cole-
 woorte leaves bray them small temper it
 with honie that it be plaister like laye
 it to the sore and lapp it well vse this
 twice a daye and it will taik away the
 4160 dead fleshe thoughe it were iij ynches
 Thick and heale withoute any other plaister
 if it be Curable thoughe it be xxx year
 ould *probatum*.

f. 107r

FOR AN HEIRE SCARTHE, taik a pair of good
 sisers and Cut awaie all the reade
 fleshe on bothe sides the skarthe *which*
 semithe to let the scarthe to close and
 looke thow cut it hard by the white skin
 Then stiche it like as thow should stiche a
 4170 wound with ij or iij stiches as for the
 bleding Care not for it will
 stop of it self but the patient head must
 be holden fast whiles it is in cuttinge
 and his bodie bound to a table with a towell
 or otherwise as in a chaire as you can
 best devise Then freshlie althoughe it yet
 blede taik a fyne linnen or laund clothe
 and weat it in the water *which* thow
 shalt fynde aboue in leaf and
 4180 lay it on the skarthe and alwaies be

4171 it] *rep.* for it

4179 in] *lac.*

dropping of the said water on it and
the blood will staunche nevertheles
kepe thy weat clothe on it vnto it be
hole and as it dryeth drop on again and
for the space of xxiiij^{or} howres or more
Let one or other watche with the patient
that the stiches be not broken with strogolyn
and let him eat bread with milk and
potage or other suche like meat whiche
of litle chewing or none vntill he be well
mendid and let the patient when he is in
cutting be laid somewhat sitting bicause the blood
may run furthe of his mowthe so mucche as
may be And I would not cut him at the
Chaunge of the moone nor at the full
nether vntill the signe were past the head
And about ix dayes and cut awaie the
one stiche and the other aboute xiiij dayes

4190

f. 107v

FOR THE HERINGE Taik an onyon and Cut a
pece therof out of the topp and put into the
hole a quantitie of oyle de bay a quantitie of
frankensens and a quantitie of aqui vite then
put the onyon in the ymbers and when it
is well rostid wring it throughe a lynnene
clothe and drop of that water in the eare
and let that ear lye vpward and so if nede
be do with the other eare PROBATUM EST /

4200

For a feaster. *id est.* a fistula Taik wheat and
burn yt and maike powder of it and put
that powder in the hole as depe as ye
can and lay aboue an oxe tarde and it
healithe woonderfullie./

4210

For an impostume Taik waybryde herb
Iohn and mousyear Seithe those toge-
ther and meddle them with holie water
and drink it first and last thre daies
and yt shall passe away throughe the
fundament./

4189 whiche] HB. *bot. marg.* meet

FOR STOPPINGE A LAXE Taik a quart of read f. 108r
 4220 wyne and put therin iiij yolks of egges
 and a pennywoorthe of long pepper and
 graynes boyle them on a fyer drink ther-
 of as hote as ye can or taik the ynnere
 bark of an oke tre and a peniwoorthe
 of long pepper and a pinte of milk
 or more according to the bark for a
 handfull of bark is enoughe for a hand-
 full of milk and let them well toge-
 ther and drink it warme fyrst and
 4230 last PROBATUM

For the fever vrtica greca plaunteyn
 dandelyon mints and woormwoode
 boyle them in a galon of water and
 gyve him therof that is of /that\ water to drink
 the first day ix sponefulls when the fever
 Comithe the second daye eight spoonfulls
 and so till yt Come to one and this is
 provid trew. Or taik thre spoonfulls of
 eysell and a litle saphron well beaten
 4240 a *quarter* of a sponefull of fyne triakle
 drink all those together when the fitt
 comithe Or taik the Roots of Crowfoot
 that grow in the morishe Ground but ye
 must taik the roots that haue no litle
 rotes furthe of them to the number of xx
 or moe and a litle of the earthe that
 is about the roots and washe them
 not put therto a litle quantitie of salt
 According to the quantitie of earthe and Roots f. 108v
 4250 and stampe all together And with a linnen
 Clothe bynde it to your two thoubes on
 the in syde betwene the two ioints and
 Let it lye ther ix daies vnremovid.
 PROBATUM SEPISSIME./

FOR THE DROPSIE could or hote taik a hand-
 full of young springe of eldertre alias

4248 salt] HB. *bot. marg.* accord

4260 burtre the grene rynde being scrapid
awaie boyle it in a gallon of wyne or
staile aile till half be sodden awaie and
gyve him therof to drink even and morne
Or taik the iuce of Elecampana and
temper *which* wyne and giue him to drinke
thre dayes and all the eyvill shall pas
throughe the fundament

4270 For the Strangurie Taik affodill *alias*
daffodill sethe in water by it self and
oyle oliff and boyle it in wyne Then of it
maik a plaister and lay it betwene
the navell and the members and it will
Lowse the strangurie in short tyme by
the grace of god.

For the pestilence Taik yarow tansey *and*
fetherfoye of eche a handfull bruse
them well in a dishe then let the sick
man maik water into the herbs a pretie
quantitie Then strain it and giue the
sick man to drinke of the some
PROBATUM PRO CERTO./

4280 FOR THE PESTILENCE Taike Rew. j. *ounce.* marigolde. f. 109r
j. *ounce.* sorelll. 8 *ounces* dragons the crop or the root
a quantitie weshe them in Clene water Taik
a pottell of Runing water and seithe therin
your herbs vnto half be waisted and let
it haue a softe fyer Then strein it through
a Clean clothe and if it be bitter put a
quantitie of suger And if he drink therof
x. tymes before the purples do Come furth
by the grace of god he shalbe hole, this
medcyne savid lxxij parsons in one
4290 pestilence tyme

An other Taik an onyon Cut out the Core
and put therin triacle and stop the hole a-
gaine with the topp of the onyon *which* you
did pair of Then roste it well in the
ymbers then stamp it and strein it with

ale and drink a good draught iij or iiij
tymes and it frome the harte and frome
the stomake.

4300 TO DRAWE A TOTHE without yron Rubb well the
tooth and the gumm with the aple of an oke
or with gume edere. *id est.* gume of yvie. And
thow maie pull it furthe with thy finger *and*
thy thumbe./

A Good dyet for an Ague

First Abstayne frome wyne spyces strong
aile and bear and drink of the smalest
ale ye can get and if yt be not small
ynoughe delay it with barlon water or with
4310 pure water well sodden boyle your
meat with cold herbes as lettice, Spinage,
burrage, endyve, Siccorie and violet leaves
great Rasinge, prownes and purselein And
with the same herbes make your posset
aile boiled in water of that water make
your Almond mylk Also with the said
herbes make your posset aile go not owt
into the Aire, nether take coold in any
wise And speciallie not in your heat or
burning In *your* hert *you* may drink smale
4320 aile at *your* pleasour / yow must abide *your*
sweat and as neere as *you* can with
temperate cloothes, And if *you* be bownd
and not solible you must vse suppositers
made of honye and salt on a glister

f. 109v

A GODE TEMPERATE DRINK to vse in
an Ague Take ij sponefull of honie a sponefull
of vineger a *quatrone* of Suger And a
compitent Stick of Sinamound Seethe
all in a pottell of Runyng watter to
4330 it coome to 3 pints And drink therof

FOR THE STOONE Take elecampane
boothe of the Roote and leaf Saxifrage

4309 your] HB. *bot. marg.* meat

and Radishe Still water of those herbes
And vse to drink of it first and last
at the spring and fall of the leaf And
after if thow will

FOR THE SAWCE FLEWME take a pe-
niwoorthe of oile de bay and a peniwoorth
of quick silver Sturr theim together vnto

4340 nought of thi quick silver be sene then put
therto a lytill luce of vnset leekes And
stur all together withe a slyce take this
ointement And anoint therwith the face
and drie it again the fier And anoint
it againe and drie it And let it stand
ouer ij daies and a half And at the third
day end weshe it away with sower
weshe of a chamber bowle, And doo in
lyke maner anoint drie and washe
4350 againe And it wilbe hoole althoughe
it be vere fowle And after that it wil
attempt to breake forthe again But looke
where it yokethe and prikelethe drie
and anoint with the same medicine at
night and weshe it away ouer the morne
I advise the after thow is hoole vse
to take purgacions for it is an evel
humour if it be hoolden in

f. 110r

TO CAUSE A WOMAN bring furthe
4360 hir child let hir drink the milk of
another woman and it shall greatlye
help hir towards the birthe of hir
child / Also stamp Rew *and* Scamonye
to gether make a Roole therof as long
as thi finger with cotton or woole blended
withe it And put it into hir privitye
or els withowt cotton put it into a
litill bagg of fyne lawnde cloothe as

4349 maner] *cancel.* ma

4333 and] HB. *ext. marg. probatum* 4339 vnto] HB. *bot. marg.*
nought 4345 stand] HB. *bot. marg. probatum*

4370 long as thy finger And anoint it with
 owt with the gall of an oxe or cow
 for that will make the way slipperie
 And it is good for furthering quick child
 or deade Also the Iuce of dittain or the
 powder of the Rote therof drunken with
 drink, bringithe furthe the byrth So dothe
 the iuice of mallows drunken for the second
 birthe And pepper in her drink is
 thought to be goode and also neseing powder
 4380 is good or any other mean that will maik
 her to nese. And I would oft annointe
 the said role with the gall and oft put it
 in that I might maik the way as slippery
 as might be and I would maik it so long
 as the middwife thought it mighte be
 sufferid and bigger then thy finger. Also
 if she drink the Iuce of leikes with luike-
 warme water it is verie good and in
 that drink put a litle honie to maik it
 more pleasant, Scammony thow shalt
 4390 haue of the poticarie and if thow cannot
 haue it yet taik rew woormwood
 mugwood dittayn or some of them or a
 date stone shaven or beaten to powder

A GOODE SALVE FOR OULDE SORE
 OR NEWE AND EASIE TO BE GOTTEN

Taik white /of\ eggs and Iuce of burtre als
 elder tre leavs beat them well together
 mixe therwith wheat flour and honye
 vnto it be plaister like and if thow cannot
 4400 get burtre leavs It will do well with
 the other things or with the grene bark
 of burtre /

FOR THE GOWTE TO PUT AWAYE
 THE ACHE THEROF

Taik the bark of an oke slape or put awaie the

4371 slipperie] HB. *bot. marg.* And 4402 burtre] HB. *bot. marg.* For

vpper Rynde therof burn it with the bark
and quenche it in vinagre stamp it to
powder blend it with the yolk of an egge
Lay it to the gowte thre or iiij^{or} tymes./

4410 For him or her that pisseth against their
will Taik the bladder of a gote shepe or
oxe drye it till you may maik powder
therof and drink that powder when ye
go to bed with water aile or wyne; also
It is good to drink the water or ale
wherin akorns are well sodden./

To help a woman to her flours drinke the
wyne that *origanum* hathe bene well sodden
in, also madder ground with oyle and into
4420 a verie thyne lynnene Clothe maid in a role
as bigg as thy finger and put into the womans
pryvitie diuers nights And the root of a
leyk in lyke manner

[LATIN]

TO MAIKE A THICKE HEDDGE Taik beries of
hawthorne callid howes a bushell ij iiij or iiij
bushells according to the quantitie of the ground
which thow will hedge maik a pitt and bury
them in the ground and Cover them with
4430 Earthe half a yeard thick or more that the
frost in winter cannot eat them and in much
twelve monthe after taik them vp then
maik a gryp of a spane depe and a
spane bread, Scater thy hawes in that
grip even as thow wilt haue the hedge
to go and cover them with fyne earthe
kepe wedes and catt all frome them
the first, and second yeare and thow shalt
therof in few years haue a goodlie
4440 hedge do the like with eshe chatts
and it shalbe so

f. 111v

4440 chatts] *rep.* do the lyke with eshe chatts

4429 with] HB. *bot. marg.* earth

thick with trees that no man shalbe hable
 to get into thy ground for trees do the
 lyke with akorns and with barbaries but
 it is sayde that barbaries will growthe
 firste year without burying first in
 the ground, but thow had nede to sow
 those vpon a bed in thy garden and
 then remove them the first or second
 4450 year there thow wilt haue them but
 Thy eshes thow must kepe them frome
 Cattell, to tyme be that cattell be not
 hable to reche them frome choppinge

To maik read turisall Taike the leaves of
 read flowre growing in Corne Callid poppy
 and lynnen Clothe clene washid, do in a
 pott acorns of those leavs and then a corns of
 thy lynnen clothe and so one acorns after an
 other vnto the pot be full Then stopp thye
 4460 Pot surelie and cover it in moiste ground
 or els in a stable in horse dounge by the spaice
 of thre monithes the longer the better Then
 taik it vp and thowe shalt fynde the clothe
 colorid read turnsall, In lyke manner
 maik blew turnsall. of blew flowrs growing
 in Corn callid bottell and yelow turnsall of
 brome flours and when thow wilt occupie
 a grene turnsall taik one clothe of blew
 turnsall and ij of yelow and those mixid
 4470 will make a good grene and with theise
 maye you Collour all meats without danger
 For theise flowrs are nothing noysomme./

To maik read Turnsall Taike rype bryer
 beries stampe them and streyn out the iuce
 weat therin lynnen Clothes and dry them
 in the sonne./ Elder tre beries also bur-
 tre beries will do the same but thow
 must seithe the iuce of ether of them
 frome a pottell to a quarte and then

f. 112r

4456 in] *cancel.* thy

4480 weat therin thy lynnē Cloute./

TO MAKE /GRAYE\ SOPE, Taikē ij bushell of bean
ashes or of wood ashes and sifte them on
a fair floore with one bushell of quick
lyme mixe them together Then do them
in a mashe fatt and fill vp the fatt
with hote water but se ther be a wispe

About the tapstaff in the bottome and let it
stand xxiiij^{or} houres Then let it ranē softly

f. 112v

4490 Do this lye over the fyre and do ther
iij or iiij old rotten shoes for that will
maik it graie and let it sethe together
iiij hours then put therto a pottell or iij
quarts of meat oyle and a pottell or more
of bay salt and let it seithe well together
and stur it with a slice. Then to knowe
when it is well taik vp a litle with a
slyce of the vppermost and when it is
somewhat Could roll it in thy hande
and if it will not Role put in some-
4500 what more salt and seithe it better and
when it will roll taik yt vp./

To maik black sope./

Taik one part of wood ashes ij parts of
quick lyme. *id est.* vnslekid lyme and thre
parts of Common ashes depart them
into v vessells with holes in the bottom with
a wifle about euery top staff And put
hote water into the first vessell and when
it hathe stand a good space as it were

4510 xij let it run softlye And that lye
cast on thy second vessell in lyke manner
and so on all thy vessells And it trowe
it best to heat the lye betwene euerye
vessell Then taik vj gallons of that lye
And one Gallon of oyle olyve And boyle

f. 113r

4498 hande] *cancel.* A

4486 wispe] HB. *bot. marg.* about 4514 lye] HB. *bot. marg.* and

them vj hours Then taik a litle with thye
 slyce and put it on a tyle stone and let
 it stand to it be Could yf it be black
 ynoughe it is well If yt be not black
 4520 ynoughe boyle it better Then put it in
 barrells when it is as black as sope
 which thow hast sene at merchants./

To kill Ratons

Taik freshe greace haver meale chese
 and vnslekid lyme of euerie like muche
 beat all together in a mortar then maik
 therof litle balls and lay them where
 the ratts do hawnt, and they will eat
 of them and dye Do water nere the
 4530 Balls and a bottell of hay And thowe
 shalt fynde parte of them dead in the
 same haye./

To gild glas silver or
 coper

Draw strong water of a *pound.* of vitrioll and
 a *pound* of sal peter and dissolve in the said water
 a noble weight of goold foil and as muche
 of mercurie vive / thei growndei first together
 and reched And when thow putes it into
 4540 the water thus reched thow shalt see the
 mercurie dissolved into the water and the
 goold lying in the bottom of the water in
 a calp Than take 3. *pennywaights.* of sal armoniak and 3.
pennywaights. of sal peter and draw a water as thow.
 didist before cast then therin that calp And
 when it is dissolued / ioin thow thes waters
 to gether And when thow wilt gilt any
 mettell heet it a litill in the fier and
 ley thervpone thie water so ioned with
 4550 a fether and let it drye.

f. 113v

For the Sawce flewin

4533 glas] *cancel.* yar

Take dragance when he is moost brimmest
roote and all and drie it in the soone and
grind it into powder then take a quart
of reed rose water and put this powder.
therin and seeth it to a pint then kepe it
in a glas And with a fether anoint the sikk
at even and morne

oleum Rosarum

- 4560 Take 3 *pounds* of oile olive and 3 *pounds and a half* of roses
and put therin to gether in a glas and then
hang the glass in a cawdron of water over
the fier And after strein it and so haist
thow *perfy*t oile of Roses./

Oleum ovorum

Take the white of eggs and put them
in a pan over the fier and stir theim
with a stikk till thei wax reed then
take them and wring oile owt of them

- 4570 For the Sciatica

Take cold vrine a quantite and as much
dreggs of ale and seeth them in a cleane
vessell and Skome them well and putt to
theim a quantite of wheat brane and as
mykell comen Salt cromes of sowre breede
ana. and boile them till thei be thick And
then plaster them.

For the Colik or Stone

- 4580 Take Carewey fenell spiknard Anice
Synamon galang of ilk a *pennywaight. and a half.* gromell
an *pennywaight.* licores. an. *pennywaight.* Sene as muche as of f. 114r
all the rest And make all in powder
and it is a Singuler powder for the
colik and stoone./

Take. j *pound.* of tartar maid of lies of wyne put

4585 put] *rep.* put

4585 put] HB. *ext. marg.* Oleum tartar

theim in an erthen pott well auelled
and fier him stronglie vntill he coome
into salt Than let him be set in a moist
place till he relent into oile./.

4590 vse to eete vnsett leekes optima medicina
against it drink the Iuce of houseleek /
[LATIN]

Take a vine leeke and stamp it and
temper it with stail aile and let the
patient drink a sponefull therof att
once. Also take rew and temper it with
salt and temper it with stale aile or
water and gyve the patient to drink.

4600 Take Ache seed lyn seed and Coommyn
of ilk one alyke mucche and temper them
wel to gether, and gyve the sike with
hoote water to drink.

Take lyn cloots cleen wesshen and burn
it and make therof powder And take oil
of eggs. and anoint the soore and put þe
powder in the hooles when ye ar anointed

4610 Take a handfull of reed mint and a handfull
of commyn and stamp them to gether a
litill and therwith cromes of soome breed
and temper that vp with fyne vinegre or
aleger so that it be thik and make a
plaister therof and then do it in a poket
of lin cloothe and chawf it at the fier to
it be hoote and then bind it to the stomak
as hoote as thow may suffer.

Take Ache and egrimons and stamp them
wel together and doo therto boore grece

f. 114v

4590 medicina] HB. *ext. marg.* For the Stone **4591** houseleek] HB.
ext. marg. pissing bloode **4593** and^{2]} HB. *ext. marg.* Colikk
4599 Coommyn] HB. *ext. marg.* For evell in the Stomak. **4603** burn]
HB. *ext. marg.* for a skalded pintill **4607** Take] HB. *ext. marg.* To
make a good Stomak **4616** Take] HB. *ext. marg.* for an evell bakk

and Asill and frie theim well and
therof a plaister and lay it as hooote as
4620 the patient mai suffer to his soore
syde.

Take leekes with the fasshes and all and
washe theim and Stamp theim and frie
theim in boores greece and make a plaister
and lai abowt the yerd./

Still water of the flowers of beans and
with this water anoint thi face hands
and neck

[LATIN]

4630 In the month of may when oxen go to
gras or be at pasture yea shall take
of their dounge not to freshe, nor to drie
then distill it fair and softlie (to theend
it smell not of the smooke) into soome
vessell of glasse or earthe leded within
of the whiche dounge will coome a
watter withowt savour or evell smell,
which wilbe vere good to take of all
maner of spotts or blemishe in the
4640 face if you washe it with it morning
and evening you shall keepe that
water in a violll well stopped
Then take 3 or 4 Radishes suche as
men eate in salades cut them smal
and put them into a violll And
fill vp the viol with wine greeke
or malmese or other good white wine
letting it stand so in the sone and
aire a day and a night / Then take
4650 one parte of the wine twoo parts of
the said water of ox dung, half

f. 115v

4620 patient] *cancel.* my

4622 Take] HB. *ext. marg.* for a yerd þat is swoolen. 4626 Still] HB.
ext. marg. ad facie dealband 4638 which] HB. *ext. marg.* Stoone
4651 half] HB. *bot. marg.* a

f. 116r

a parte of the water of Strawbu-
ries. 2 or 3 dropps of the Iuce of
lemonndes or Cytrons: And let there
be of all thes waters so *proportioned*
together. half a glasfull or soome-
what moore into the *which you* shall put
a peece of Sugerr, or a lytill honye
rosett, for thone and thother seme
4660 aswell to the savour, as to the *perffit*
of the substance after this *you* shall
put to it /a litill of\ the powder of an haire
strangled and baked to powder *and*
as muche as will lye ouer a groote
And then gyve the patient drink
of it and shortlie after thou shalt
se a wonderfull efect. for many
to whom I haue gyve of it haue
not taried half an howre but thei
4670 haue pissed in the whiche pisse
thei haue found so many litill stones
that all together came to the big-
nes of a walnut /

Take 3 drams of tutia maid in pow-
der vere small and as muche Aloe
epaticum in powder twoo drams of
fyne Sugerr. vj vneces of rose watter
vj vneces of good white /wine\ mixe all
this together and put it in soome
4680 cleane vessell of glas and being well
cloosed and stopt set in the sunne a
moneth together continuallie mixing
and sturring together all the said
things (at the least once a day to the
intent thei may. incorporate well
together This doone take of the same
water and put certein dropps of
it vpon your ees morning and evening
and in continuing so a certain space

f. 116v

4676 of] HB. *ext. marg.* for the ees

4690 it will cause the sight to come again
as clere and as pure as it was before
And this was maid and ordained bi a
consultacione and counsell assembled
of the wisest and best phisicions of
all Italye.

Take 3 vnces of turpentyne first
wasshed in *common* water And then
in Roos or plaintaine watter, the
yolk of an egg an vnce and a half
4700 of oile Rosett, of Sublimate half a
dragme, mixe all thes well together
and make therof a plaister, and
laie it vpon the woonde / And
bicause it drawethe soomewhat
make this defensyve Take twoo
parts of oile Rosett half a part
of vineger a litill boyle armonik
at your discrecion, mingle all to
gether and rubb within iiij or v figners
4710 or moore rownd abowt the wounde
And hoold not the infected member
to frome the fier to the Intent
that whilest the deed fleshe is con-
suming and eting awaye, lay to yt a
litill band with butter and leave
it vpon the wounde a whoole day
and *you* shall see a *mervelous* thing

Take the seede or buryes of Ivie that
groweth on trees or walls, and not of
4720 that whiche is founde low bi the ground
and *you* must gather the said buryes veri
ripe and towards the northe if
it be possible, if not take theim as *you*
may get theim, althoughe thei be
not vere ripe drye theim in the

f. 117r

4701 dragme] HB. *ext. marg.* olld wound
defensatyve | to] HB. *bot. marg.* gether
pestilence

4708 at] HB. *ext. marg.*
4724 be] HB. *ext. marg.*

- shadow and kepe theim in a box
of woode as a precious thing, and
if any be infected with the pestilence
take of the said beries and beate
4730 theim to powder in a cleane mortar
and give the patient of the said
powder in a glasse full of white
wine, as muche as a man may lay
vpon a groote or moore: then cover
him in his bedd and make him swete
ivell / This doone chaunge his shert
and sheets and other coverings of
his bed if it may be, if not yet
his shirt and sheets. some having
4740 taken of this powder over night
founde theim selfs so well in the
morning that thei roose vp and
clethed theim selfs and walked
abwt their chamber take this
morning and evening./
- Take manie seedes to gether and
set theim in goots dounge And let
theim grow and Ripe And you shall
see a mervelous thing./
- 4750 Take Rew and stamp it, and lay
it vpon the swollen coddys and
immediatlye it will asswage ther
swelling which thing is sufficientlie
proved
- Take wheat bran and seath it with
the Iuce of Rew and lay it vpon
hir breests that be hardened after
hir liyng downe And thei wil wax
soft and supple /

f. 117v

4742 and] *cancel.* che

4746 Take] HB. *ext. marg.* To make leeks | grew bigg 4750 Take]
HB. *ext. marg.* Coddys swollen 4755 Take] HB. *ext. marg.* for the
harding | of women brests

- 4760 take litill noosgays of colwoorth and
 put theim in sething watter and
 let them be in it after it haithe
 begone to boile while a man wil goo
 v. or. vj pases, then take theim owt of
 the water and stamp theim, and take
 the Iuce of theim, and streane it through
 a lynning cloothe, and kepe it in an
 earthen vessell the space of a night
 in the eare abroode then put to yt
 4770 soome cornes of salt and a lytill
commyn cut small and mynced./
 now he that will purge him self
 and take this medycine, must goo
 to bedd superlesse, and washe well
 his leggs hands and armes with hootte
 watter, and drink the Ivce so made
 in the morning and walk vpon it
 3 or 4. howres, and when he haith
 lust to vomitt, let him vomit and
 4780 he shall cast vp so muche cholerr
 and flewme that it shalbe a mer-
 velous thing to se And it will also
 purge the heede./
- Take a pott full of the leaves of
 yve couered and close pasted with
 drie donghe and set it in a hootte
 oven vntill the leaves will powder
 drink a lytill fyt in warme ale
 even and morne after / *probatum*.
- 4790 Take a pound of new yalew wax or as
 muche as you will and let it melt on the
 fier in a cleane pan And then poore yt
 into another pan or dishe wherin must be
 malmesey muscadell or other whyte
 wyne that is vere good. after take it

f. 118r

f. 118v

4760 take] HB. *ext. marg.* To purge | colour and | flewme /
4762 haithe] HB. *bot. marg.* begone **4784** of²] HB. *ext. marg.* for the
 stone | and colyk

owt of the wine, and melt it again / then
 powder it again vpon the said wine
 doing so vij tymes then take the said
 wax and melt it on the fier mixing
 4800 with it a handfull of breck finelye
 beaten, incorporate all well together
 and put it into a croked nekk viol of
 glasse claid abowt vp to the middes of
 the nekk and let it first distill with
 a litill fyre bi the space of 8 howres
 and after make *your* fier greter and at
 the end vere great: and the sides and
 iounts of the recepiant, must be well
 cloosed. And after all is coold put the
 4810 water into a viol well stopped with
 wax and cired cloothe so that in noo
 case it may take vent nether must it
 be set wheare the heat of the sune ar
 fier may coome to it The said licour
 is *mervalous* good for all kinde of wounds
 and you must weat and moist the
 wound with it and bind vpon it
 a peece of linnen cloathe steped in
 the said watter. And this wax parted
 4820 on a gent who said a soore hurt in
 the wrest of his foote being a dan-
 gerous place and heled him in 2.
 days so that the place where the
 soore was coold skantlye be seene
 and it is good for shronken synews./
 Taike the Iuce /of valerian\ of read dokens and
 as muche iuce of barberys bark
 and a grene goos turde and
 meng them together with something
 4830 that will take away the smell.

4797 powder] *emend.* power

4799 wax] HB. *ext. marg.* new sores 4828 and^{1]} HB. *ext. marg.*
 Iawnes yelew

and caste thereof and swallow yt.

Take barley and seith yt in fair
water and so seith yt in thre sundrie
waters and then lay yt in a lytill
pokket as hoothe as ye can to *your* bakk.
but first take a lytill venece turpen-
tyne pource in roose water and mended
with sugar and swallow yt

f. 119r

Take to one pound of wax 3 *ounces.* of clere
4840 turpentine in somer and 4. *ounces.* in winter
melt them to gether vpon a soft fier
and then taking yt fro the fier, when
it is a lytill coold put into it an *ounce*
of Salat oyle and an *ounce* of vermilyon
wel ground on a marvell stoone mixing
and sturring them well all together
but soome in steed of vermilyon put
in reed leed but then in the steed
of the *ounces* of vermilyon their must be
4850 3 *ounces* of reed lede And in like maner
may *you* make grene wax if in stede
of vermylion *you* take an *ounce* of grene
coperouse fynelye grownd
for the toothe ache Take a litill blak woole
and weete it in the iuice of plantane and
put it into that eare of *which* side the toothe
that trooblethe *you* is and lye downe with
that side vppward And it will not
pain *you* but with noise as though yt
4860 thondered And in the space of an howre
take forthe the woole and *you* shall perceave
that the humor is drawn that way:
and therfore with soome cloothe clence the
eare of suche bloode matter as shal appere

4831 yt] HB. *bot. marg.* Also take as muche tracle as a chesnutt and
half anvnce of Saffron incorporate them well together and put them
into a white onyon having the goer first pyked forth at the topp *which*
you must rooste against the fier and then strein yt through a cloothe
and Take it thre morninge fasting / **4833** sundrie] HB. *ext. marg.* for
the stoone | and heat in | the bakk **4845** mixing] HB. *ext. marg.* Wax

and further if *you* take a lytill mastyke and
 with a warme knife Smeare it vpon a peece
 of velvet of iij *pounds* breadeth and lay it so warm
 vnto that side of your paine is of and namelie
 vnto that place of the face *which* thei vse to
 4870 break for the migrim and as nyghe as *you* can
 vpon the vain *which* fedethe the pained toothe
 and yt will scauer the humour.

for the same purge the heede with cochee
 and vj gargarices and if it coome of any
 coold cause chew in thi mowth dyvers
 tymes the roote of horehownd And if yt
 come bi woormes make a
 candel of wax with henbaine seedes and
 4880 light it and let the *perfume* of the candell
 enter into thi toothe and gape over a
 dishe of coold watter and than may *you*
 take the woormes owte of the water
 and kill them

when *your* greweng of coold cometh go to
 bed And let one lay to *your* naked sooles
 of the feete humblelie rootes wesshed and
 pared Snayles gray pyked forthe of
 the shells. and a lytill bay salt all
 powdred to gether and laid on a
 4890 blew clowt. yt wilbe so coold the
 patient cannot wel suffer yt but lay
 above it warme cloothes and get heet
 into his feete so soone as you can And
 do this twise or thrise at the mooste
 I haue knowen manye cured with the
 fyrst laing to./

for the crampe when it begininthe
 say thes woordes Bero Berto Bertoro.
 tryes and by godes help the pain shal eas.
 4900 or anoint the members greved with fox greace

4877 come] *cancel.* of a hoote cause

4885 bed] HB. *ext. marg.* Fever 4898 say] HB. *ext. marg.* Cramp

Take a blew woollen /clothe\ as muche as will lapp.
 about the knee or leg And then take the
 whyte of thre hen eggs being well bet
 in a dishe and spreede it on a cloothe
 then take the yolkes and heate them in
 a dishe and put therto bolak soope as
 muche or moore and beete them wel
 together and make therof a salve and
 spread it thick vpon the cloothe on
 the white of the eggs and lapp it about
 the kne or legg and rowle it above
 and let it lye thre days and it will
 fetche awai the Swelling and ache

f. 120r

[LATIN]

Take. conserv. rosarp. antiq. ij ounces, *id est.* two ounces
 conserv. Cumph. *id est.* comfra. vj ounces, vi ounces and six
 drams. semen galitri vi ounces, glare j ounce. *id est.* one
 drame semen Acetoselle vi ounces sorrell an ounce and a half.
id est.

half a dram / diarodon Abbats. Imp /or\ . *id est.* bure
 scruples . in serap mirtillop. *id est.* of mirtills
 9. scruples. *id est.* quantum sufficit misse fiat elec-
 tuare deanratum s. a. *id est.* scound artem
 take in the morning fasting as muche of
 the powder as a walnut and put yt
 in posset drink of white wyne with a
 lytill sugar in yt And the next morning
 take lyke quantite of the electuarie
 vntill you haue drunk all the powder
 and eten or swallowed the electuare
 and forbeere meat after everi receat
 two howrs

f. 120v

Take 9. busshells good malt and take a pekk
 or more of yt which pek you must causei to
 be grownd great vj ounces but spelked And
 kepe it to thi vse / now you must haue
 a leed or great caldron 2. maskfats a

4904 cloothe] HB. ext. marg. knees or leggs | swollen **4915** ownecs]
 HB. ext. marg. for the stoone | and strangurye

large tronghe or. 2. a colere or 2. and
 a fair gylefatt Then take and fill *your*
 4940 furnes with 30 *gallon* water /and strew
 a handfull of your malt on it and\ cover it and
 seeth yt And also haue vj or 7. *gallons.* more
 redye hoothe And now when your water
 in the furnes haith sooden enoughe take it
 forthe and put it into thone of *your* fatts
 together with the said vj or 7. *gallons* aforesaid
 for the malt will drink vp almost /as muche\ of
your licour Then put vpon the said water
 3. *pounds.* of *your* said grownd malt letting it
 4950 stand soo an howre or moore without
 styrring And immediatlye vpone the emptying
 of your furnes haue redye 30 *gallons* moore *which*
you must seethe as the fyrst Then pull vp
your tapp. and let the fat rune into a
 tronghe Then take *your* last 30 *gallons.* and cast
 it on the said grains and so let yt stand
 Then take *your* fyrst licour and seyth yt in *your*
 furnes a *quarter* of an howre putting a good
 handfull of hopps to yt Then take the same
 4960 licour and powre it into *your* second fat
 and cast other 3 *pounds.* of *your* said malt on it
 and when it haith stand a while let yt
 rune and keele and carie it away for good
 woorte Then let *your* second lycour rune
 and sethe it in the furnes again And after
 cast yt on thother grains in thother fatt
 and after yt haith stoode a while let yt rune
 And sethe yt a *quarter* of an howre with a
 handfull of hopps And in the meane tyme
 4970 emptie thoone of *your* fatts And then powre
 into yt that lycour And cast of yt the last
 3. *pounds.* malt and let yt stand and then rune
 and carie yt also awaie for good woort And
 when boothe *your* woorts ar coold enough: *you*
 may put them together / And to make *your*

f. 121r

4943 redye] HB. *ext. marg.* To make | Aile 4973 And] HB. *ext. marg.*
 Aile

small aile or beere take xvi *gallons*. water and warm
 it in *your* furnes and then powre yt vpon
your woort granes and let it rune And.
 then seeth it in *your* furnes and powre it
 4980 vpon *your* best granes and let yt remaine
 an howre and then let yt rune keele
 and put it to barnne /

And now to make *your* good woorte
 perfite aile take 2 or 3. *gallons*. water and
 seethe vere well always
 stirring And when yt haythe so sodden
 2 howrs /and vnto all the white aboue haith
 soden yn\ take it of and let yt keele *and*
 then powre the rest when it is coold into the
 4990 gylefat with soome barme and a *quarte* or 2.
 of *your* good woorte and when yt worketh
 put in moore woorte vj *pounds* bi a pottell
 and galon for the moore stronglier yt
 woorketh. the more boolder *you* may be
 to put it in And so vntyll *you* haue
 all letting yt remaine in the gylefat
 day And then *you* must clence
 yt vp throughe a small sief or riddell
 into *your* vessells putting wine barme
 5000 vpon it

f. 121v

And if *your* aile or beare be sower *you*
 may hing a new laid egg. in yt reching
 so nere the bothome of *your* vessell as *you*
 well may so that *you* towche not the
 bottome And yt shall *persiue* *your* beare
 or ale yea a moneth that yt shalbe
 no sower then when *you* put *your*

4984 and] *cancel*. the said peck of spelked malt or moore And put a
 pinte of raw grout vnto it *which* is thus made take a *quarte* or pinte of
 water and a litill spelkt malt and seeth yt well let it stand after yt is
 soden in soome erthen pot 3 or iv. days and let it **4988** and²] *cancel*.
 take a *quarte* of yt and kepe in a erthen port vnto the next tye (as *you*
 do leven) **4998** yt] *cancel*. p

4996 gylefat] *lac*.

egg into yt

Seeth it and then put it into a wood barrell
 5010 for the same purpose And when it is coold
 enough *which you* may know by weting your
 sterrer and put or clap a litill malt by it
 and then put into the water and if
 your malt go cleane of *your* sterrer it is coold
 inoughe. let not then put all *your* spelked malt
 into it and also *your* raw growt with the pot
 and all that it was in and then stirr it and
 cover it and let it stand all the night And
 then take forthe soome /of\ yt into *your* said pott
 5020 against the next tyme And if yt be over tart
 water and malt to yt And then in the morning
you must seeth yt on the fyer.

5013 put] *cancel.* a litill

3.3. The compilation of the glossary of H135

The present section provides a glossary of the words in H135, which will certainly help the reader understand its contents. Therefore, nouns, verbs, adjectives and adverbs are included, while pronouns, prepositions, determiners and conjunctions have been discarded as they do not represent a difficulty for the reader, who is expected to be acquainted with the foundations of early Modern English morphology.

In order to compile such a glossary, the words were exported to an Excel spreadsheet (Figure 3.6). In this spreadsheet, each word was assigned an ID number so that it could be allocated in the text, and some columns were added to be filled with their correspondent information: Lemma (the entry of the glossary under which the word will appear), Word Class (i.e. noun, verb, adjective or adverb), Folio, Face and Meaning.

ID	Word	Lemma	Word Class	Folio	Face	Meaning
1	THE	the, d	Dete	34	r	The
2	heade	head, n	Noun	34	r	Head
3	happenithe	happen, v	Verb	34	r	To happen
4	to	to, p	Prep	34	r	To
5	be	be, v	Verb	34	r	To be
6	wounded	wound, v	Verb	34	r	To inflict a wound or wounds
7	in	in, p	Prep	34	r	In
8	divers	diverse, a	Adje	34	r	Diverse
9	manners	manner, n	Noun	34	r	The way in which something is done or takes place; method of action; mode of procedure
10	Somtyme	sometimes, b	Adve	34	r	Sometimes
11	wth	with, p	Prep	34	r	With
12	breakinge	breaking, n	Noun	34	r	The action of breaking
13	of	of, p	Prep	34	r	Of
14	the	the, d	Dete	34	r	The
15	panne	pan, n	Noun	34	r	A vessel, of metal or earthenware, for domestic uses, usually broad and shallow; the skull, especially its upper part
16	and	and, c	Conj	34	r	And
17	somtyme	sometimes, b	Adve	34	r	Sometimes
18	wthoute	without, p	Prep	34	r	On the outside or outer surface
19	breaking	break, v	Verb	34	r	To break
20	thereof	thereof, b	Adve	34	r	Thereof
21	And	and, c	Conj	34	r	And

Fig. 3.6. The compilation of the glossary

As observed in Figure 3.6, the ID number is necessary for words that may belong to different word classes, depending on their position in the sentence: *breakinge*, either a noun or a verb; or *be*, either a verb or a preposition (by). This information is particularly relevant when functional words were being lemmatised, as their ID number would allow us to find their position in the text and, therefore, their

word class would be determined. In addition, some of the lines in the Excel spreadsheet had to be modified. On the one hand, there were words that, despite separate in the text, represent a single lemma (i.e. *to gether*, *chicken mete*, *pia matter*, etc.). On the other, there were words in the text that, despite joined, represent two different lemmas (i.e. *shalbe*). These problems were solved by the addition or the deletion of the corresponding rows in the Excel spreadsheet.

Once the Excel spreadsheet was duly filled, the tool *Text Search Engine* (Miranda-García and Garrido-Garrido 2013) was used to automatically generate the glossary. The lemmas for each of the entries are taken from the *Oxford English Dictionary* (Simpson and Weiner 2004),⁸⁴ which appears in bold script in the glossary.⁸⁵ After it, the corresponding word class is italicized (*n.* for noun, *v.* for verb, *a.* for adjective and *b.* for adverb), followed by the meaning(s). Next, the different spelling variants are provided together with their frequency of occurrence.⁸⁶ Finally, whenever the initial letter(s) of a given spelling variant do(es) not coincide with those in the lemma, that variant is given an individual entry referring to its corresponding lemma, as in Table 3.1.

incurable , <i>a.</i> That cannot be cured; incapable of being healed by medicine or medical skill vncurable (4x)	<i>vncurable</i> → incurable
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Table 3.1. Glossary entries

⁸⁴ Whenever a word is not recorded in the *OED*, the *Middle English Dictionary* (Lewis et al. 1952–2001) was consulted.

⁸⁵ It must be noted that the Latin words in the texts have not been included in the present glossary unless recorded in the *OED* or the *MED*.

⁸⁶ Once the Excel spreadsheet was duly filled, the tool *Text Search Engine* (Miranda-García and Garrido-Garrido 2013) was used to automatically generate the glossary.

3.3.1. The glossary of H135

A

abide, *v.* To abide

abide (1×), abyde (4×)

able, *a.* Having the qualifications for, and means of, doing anything

hable (2×)

above, *b.* Above

aboue (46×), abouen (1×)

abovesay, *v.* To mention higher up on a document or page

abouesaid (2×), abouesaide (1×),

abouesayde (2×)

abroad, *b.* Broadly

abroad (1×), abroad (5×), abroad (4×), abroode (1×)

abstain, *v.* To keep or withhold oneself, to refrain

Abstayne (1×)

abundance, *n.* Overflowing state or condition, overflow; superfluity; enough and more than enough

aboundance (1×), habundance (1×)

access, *n.* A coming on of illness or disease, especially of sudden illness

axes (2×)

according to, *b.* In a manner agreeing with, consistent with, or answering to

according to (3×)

ache, *v.* To suffer pain or distress

ake (1×), aken (1×), akith (1×),

akithe (2×)

ache, *n.* A pain

ache (20×), ake (2×), eeke (1×),

iche (2×)

aching, *n.* A painful throbbing; a feeling of continued pain

aking (12×), Akinge (4×)

acorn, *n.* The fruit or seed of the oak-tree; an oval nut growing in a shallow woody cup or cupule

Acornes (1×), acorns (2×),

akorns (2×)

add, *v.* To add

addid (1×)

adown, *b.* To a lower place or situation

adowne (1×)

advise, *v.* To advise

advise (1×)

affodill, *n.* Name of a liliaceous genus of plants, Asphodel, or King's Spear (*Asphodelus*, incl. *Anthericum*), natives of the south of Europe, and grown as garden flowers and medicinal herbs

affodile (1×), affodili (1×),

affodilie (1×), affodill (5×)

afore, *b.* Before
afore (1×)

aforesaid, *a.* Mentioned, or treated of before or already
aforesaid (2×), aforesaide (2×)

afraid, *a.* In a state of fear or apprehension, moved or actuated by fear
affrayed (1×)

after, *b.* After
after (125×)

afterwards, *b.* Afterwards
afterward (4×), afterwarde (2×), afterwards (2×), afterwerd (1×)

again, *b.* Again
again (30×), againe (26×), agayne (1×)

age, *n.* Age
age (3×)

agrimony, *n.* A genus of plants (family *Rosaceae*), of which one species (*A. Eupatoria*), to which the English name is usually attached, is common in Britain
Agremonie (1×), egremonie (2×), egremoyne (4×), egrimons (1×), egrymoin (1×)

ague, *n.* The name ague was apparently at first given to the burning or feverish stage, but afterwards more usually to the cold or shivering stage, as being the most striking external character of the disease

Ague (8×)

air, *n.* Air; The transparent, invisible, inodorous, and tasteless gaseous substance which envelopes the earth
aire (3×), eyr (1×)

ale, *n.* Ale, beer
aile (19×), ale (24×), ayl (1×), ayle (3×)

alegar, *n.* Sour ale; vinegar formed by the acetous fermentation of ale
aleger (1×)

alembic, *n.* An apparatus formerly used in distilling
lymbeck (1×)

alexanders, *n.* An umbelliferous plant (*Smyrniolum Olusatrum*), called also Horse-parsley, formerly cultivated and eaten like celery
Alexander (2×), Allexander (1×), Allexandrin (1×), Saunders (1×)

alias, *b.* Otherwise; another name
alias (2×)

alike, *a.* Like one another, similar
alyke (1×)

almaine → **germany**

almanac, *n.* Alamanac
Almynak (1×)

almighty, *a.* All-powerful, omnipotent
almightie (2×)

almond, *n.* Almond
Almond (1×), almonds (1×), almonnes (1×)

almost, *b.* Very nearly, wellnigh, all but;
All-powerful, omnipotent

almost (1×), almoost (1×),
almost (8×), almoste (5×)

aloe, *n.* The fragrant resin or wood of
the agalloch

Aloe (1×), aloes (9×), Aloyes (1×)

alone, *a.* Alone

alone (1×)

also, *b.* Also

als (2×), also (60×)

altogether, *b.* Entirely, wholly, totally,
quite

altogether (3×), altogether (5×)

alum, *n.* A whitish transparent mineral
salt, crystallizing in octahedrons, very
astringent, used in dyeing, tawing skins,
and medicine

allome (5×), Alom (1×), Alome
(10×), alome roche (1×), roche
allome (1×), roche alome (1×)

always, *b.* At every time, on every
occasion

allwaies (1×), alwaie (1×), alwaies
(3×), alwais (1×), alway (1×),
always (1×), always (1×)

ammoniac, *n.* Ammoniac

amoniac (1×), armoniake (1×),
armonik (1×)

ana, *b.* Used in recipes in the sense of
throughout, of each, of every one alike,
in specifying a quantity applicable to

every ingredient

ana (10×)

anet, *n.* The herb Dill (*Anethum
graveolens*)

anet (1×)

angletwitch, *n.* A worm used as bait in
fishing; an earth-worm

angell twaches (1×)

anguish, *n.* Excruciating or oppressive
bodily pain or suffering

Angwishe (1×)

anise, *n.* An umbelliferous plant
(*Pimpinella Anisum*), a native of the
Levant, cultivated for its aromatic and
carminative seeds

Anice (1×), Annes (1×),
annyouse (1×)

aniseed, *n.* The seed of the anise, used
as a carminative, and in the preparation
of Oil of Anise

aniseedes (1×), Aniseeds (1×)

annoy, *v.* To trouble, irk, bore, weary
noye (1×)

anoint, *v.* To smear or rub over with an
oil or unguent

annoint (33×), annointe (3×),
annointid (5×), anointing (2×),
annoynt (12×), annoynte (3×),
annoyntid (2×), anoint (12×),
anoointed (1×), anoynt (2×),
anoynted (1×)

Anon, *b.* Straightway, at once,

forthwith, instantly

annon (1×), annone (1×), anon
(3×), anone (3×)

antiochene, *a.* Of or pertaining to
Antioch in Syria

Antioche (3×)

aposteme, *v.* To be affected with an
apostem

appostemid (1×)

aposteme, *n.* A gathering of purulent
matter in any part of the body; a large
deep-seated abscess

apopostemes (1×), aposteme
(3×), apostemes (3×), apostume
(3×), apostumes (1×), apposteme
(7×), Appostemes (5×),
appostome (2×), appostume (4×)

apostolicon, *n.* A reputed cure for all
kinds of wounds

Apostolicon (2×), appostolicum
(1×)

apothecary, *n.* One who kept a store or
shop of non-perishable commodities,
spices, drugs, comfits, preserves, etc.

poticaire (1×), poticarie (3×),
poticaries (1×)

appear, *v.* To appear

appear (3×), appeare (1×),
appearithe (1×), appere (2×),
apperith (1×)

appetite, *n.* Craving for food, hunger

appetyte (1×)

apple, *n.* Apple

aple (1×)

apprinze, *n.* Seizure

apreise (1×)

ard, *n.* A primitive light plough

arde (1×)

arm, *n.* The upper limb of the human
body, from the shoulder to the hand

Arm (3×), Arme (30×), armes
(1×)

arm-hole, *n.* An arm-pit

armehooles (1×)

arrow, *n.* A slender pointed missile shot
from a bow, usually feathered and
barbed

arow (1×), arowe (1×), arrow
(7×), arrowe (3×)

arse, *n.* The bottom; the lower or hinder
end

ars (4×)

artery, *n.* One of the membranous,
elastic, pulsating tubes, forming part of
the system of vessels by which the blood
is conveyed from the heart to all parts of
the body

arteries (7×)

ash, *n.* Ash

ashe (1×), ashes (8×), eshe (2×),
eshes (1×)

ashweed, *n.* The Goutweed (*Egopodium*
Podagraria)

eshewood (1×)

aside, *b.* To one side; out of the way

asyde (1×)

Asill → **hazel**

ask, *v.* To ask

ax (1×)

assemble, *v.* To bring together into one place or mass, to collect

assembled (1×)

assuage, *v.* To soften, mitigate, calm, appease

asswage (1×), aswaige (1×)

assure, *v.* To make secure against change or overthrow

Assured (1×)

asthma, *n.* Difficulty of breathing

Asma (1×)

attempt, *v.* To make an effort, to use one's endeavour to do or accomplish some action

attempt (1×)

author, *n.* Author

Auctor (1×)

avell, *v.* To pull or tear away, pull up

auelled (1×)

avens, *n.* Popular name of two species of the genus *Geum* (family *Rosaceæ*), the Wood Avens or Herb Bennet (*G. urbanum*), formerly used medicinally and to give a clove-like flavour to ale

avance (2×), avaunce (4×),

avaunse (1×)

away, *b.* From this (or that) place, to a

distance

awai (2×), awaie (44×), away

(27×), awaye (14×)

B

back, *b.* Back

back (1×)

back, *n.* The convex surface of the body of man and vertebrated animals which is adjacent to the spinal axis, and opposite to the belly and most of the special organs

back (1×), bak (1×), bakk (5×)

backward, *b.* Towards one's back, or the back of anything

backward (1×)

bacon, *n.* The back and sides of the pig, cured by salting, drying, etc.

Bacone (1×), Bakon (1×)

bad, *a.* Bad

bad (1×), woorse (1×)

bag, *n.* A bag, pouch, small sack

bagg (7×), bagge (2×)

bake, *v.* To cook by dry heat acting by conduction, and not by radiation, hence either in a closed place (oven, ashes, etc.), or on a heated surface (bakestone, griddle, live coals)

baked (1×)

balk, *n.* A bar

balk (1×)
ball, *n.* Ball
 ball (2×), balls (2×)
ballock, *n.* A testicle
 ballock (4×), ballocks (4×)
band, *n.* A strip of any material flat and thin, used to bind together
 band (1×)
banwart → **bone-wort**
barb, *n.* The beard of a man
 barbes (2×)
barberry, *n.* A shrub (*Berberis vulgaris*) found native in Europe and North America, with spiny shoots, and pendulous racemes of small yellow flowers, succeeded by oblong, red, sharply acid berries
 barberie (1×), barberies (2×),
 barberys (1×)
bare, *a.* Unclothed, naked, nude
 bair (1×), baire (1×), bare (4×)
bark, *n.* The rind or outer sheath of the trunk and branches of trees, formed of tissue parallel with the wood
 bark (10×), barke (5×)
barley, *n.* A hardy awned cereal (*genus Hordeum*), cultivated in all parts of the world
 barle (1×), barley (3×), barlon (1×)
barm, *n.* The froth that forms on the top of fermenting malt liquors, which is

used to leaven bread, and to cause fermentation in other liquors
 barme (4×), barnne (1×)
barrel, *n.* A cylindrical wooden vessel, generally bulging in the middle and of greater length than breadth
 barrrell (1×), barrells (1×)
bartre → **bourtree**
basic, *a.* Basic
 besic (1×)
bath, *v.* To immerse, as in a bath; to immerse (the body, or any part of it) in water or other liquid
 baithe (2×), bathe (1×), bathid (1×)
bath, *n.* A quantity of water or other liquid prepared for bathing
 bathe (1×)
battle, *n.* A fight
 bataille (1×)
bay, *n.* A berry, a small fruit
 bay (1×)
bay-salt, *n.* Salt, obtained in large crystals by slow evaporation; originally, from sea-water by the sun's heat
 bay salt (4×)
bay-tree, *n.* Bay-tree
 bay tree (1×)
be, *v.* To be
 ar (10×), are (40×), be (528×), bee (1×), being (14×), bene (13×), beyng (1×), is (467×), was (18×),

were (20×), ys (3×)
bean, *n.* A smooth, kidney-shaped, laterally flattened seed, borne in long pods by a leguminous plant

bean (4×), beans (2×), benes (1×)

bear, *v.* To support the weight of (anything) whilst moving it from one place to another

bear (2×), bearithe (2×), bering (1×)

beast, *n.* An animal

beast (2×), beaste (1×), beasts (1×)

beat, *v.* To break, crush, smash, or overthrow by hard knocks

beat (5×), beate (2×), beaten (8×), beete (1×), bet (1×), bete (2×), beten (6×), bett (1×)

bed, *n.* Bed

bed (15×), bedd (6×)

beef, *n.* The flesh of an ox, bull, or cow, used as food

beif (4×)

beer, *n.* An alcoholic liquor obtained by the fermentation of malt

beare (2×), beere (1×)

before, *b.* Before

befor (1×), before (45×)

boforesaid, *a.* Mentioned, or treated of before or already

boforesaid (1×), boforesaid (3×)

begin, *v.* To begin

began (1×), begane (1×), begininge (1×), begininthe (1×), beginnithe (2×), begone (1×), begyn (1×), begyne (1×), begyninge (2×), begynnithe (1×)

belly, *n.* That part of the human body which lies between the breast and the thighs

bealye (1×), belie (1×), bellie (1×), bellye (1×)

belong, *v.* To belong

belong (1×), belonging (1×)

bent, *n.* A name given to grass of a reedy or rush-like habit, or which has persistent stiff or rigid stems

bent (1×)

berry, *n.* Any small globular, or ovate juicy fruit, not having a stone

buries (1×), buryes (2×), berries (5×)

besic → **basic**

best → **good**

bet(t)er → **good**

betony, *n.* A plant (*Stachys Betonica*) of the Labiate order, having spiked purple flowers and ovate crenate leaves

betonie (7×), betony (1×), betonye (1×), bytain (1×)

beware, *v.* To be cautious or on one's guard, to be wary

beware (4×)

bid, *v.* To bid

bidde (1×)

big, *a.* Big
big (2×), bigg (7×), bigge (1×),
bigger (2×)

bigness, *n.* Bigness
bignes (2×)

bile, *n.* The fluid secreted by the liver,
and poured into the duodenum, as an
aid to the digestive process
byle (1×)

bind, *v.* To tie fast; To make fast with a
band or bond
bind (7×), binding (1×), bound
(4×), bownd (1×), bynd (5×),
bynde (7×)

birth, *n.* Birth
birthe (2×), byrth (1×)

biting, *n.* The action of the verb 'bite'
byting (1×), bytinge (1×)

bitter, *a.* Bitter
bitter (2×)

black, *a.* The colour black
Black (19×), blacke (2×), blak
(8×), blake (1×)

blackish, *a.* Somewhat black; inclining
to black
blackishe (2×), blakishe (1×)

blackness, *n.* Blackness
blacknes (3×)

bladder, *n.* A membranous bag in the
animal body
bladdder (1×), bladder (3×),

bladder (2×), bleedders (2×),
bleder (1×)

blade, *n.* The thin cutting part of an
edged tool or weapon; a broad flattened
bone or part of a bone
blades (1×)

blain, *n.* An inflammatory swelling or
sore on the surface of the body, often
accompanied by ulceration
Blaynes (2×)

blanch, *v.* To whiten almonds, or the
like, by taking off the skin
blanchid (2×)

bled(d)er → **bladder**

bleed, *v.* To emit, discharge, or lose
blood
blede (9×), bleeding (3×),
bledinge (1×), bleede (1×),
bleedinge (1×)

blemish, *n.* Physical defect or
disfigurement; a stain
blemishe (1×)

blend, *v.* To mix, to mingle
blend (11×), blended (3×)

blew → **blue**

blister, *n.* A thin vesicle on the skin,
containing serum, caused by friction, a
burn, or other injury
blisters (1×)

blood, *n.* Blood
blode (5×), blood (7×), bloodde
(1×), bloode (12×)

blood-warm, *a.* As warm as blood; of the normal temperature of blood in the body

bloodwarm (1×)

bloody, *n.* Covered, smeared, stained, with blood; bleeding

blodie (1×)

blue, *a.* Blue

blew (7×)

boar, *n.* The male of the swine, whether wild or tame

boares (1×), boars (1×), boore (1×), boores (1×), bores (2×)

board, *n.* Board; A piece of timber sawn thin, and having considerable extent of surface

boord (1×), boorde (2×), bord (1×), bourde (2×)

body, *n.* The human body

bodie (15×), body (4×), bodye (5×), boody (1×)

boforesaid → **beforesaid**

boil, *v.* To boil

boil (1×), boile (12×), boiled (1×), bollen (1×), bollinge (1×), boole (1×), boyl (3×), boyle (50×), boylee (1×), boylid (9×)

bold, *a.* Stout-hearted, courageous, daring, fearless

boulder (1×)

boldly, *b.* Courageously, daringly, fearlessly

boldly (1×), booldlye (1×)

bole ammoniac, *n.* A soft friable fatty earth, usually of a pale red colour

bole armoneak (1×), bole armoniak (4×), boll armoniak (1×)

bolne, *v.* To swell

bolne (1×), bolned (1×), bolnen (1×), bolning (5×), BOLNINGE (1×)

bolster, *n.* A long-stuffed pillow or cushion used to support the sleeper's head in a bed

bolster (2×)

bolt, *v.* To fasten together; to sift; to pass through a sieve or bolting-cloth

bolt (1×), bouldid (2×), bultid (3×)

bond, *n.* Bond

bond (1×)

bone, *n.* The general name for each of the distinct parts which unitedly make up the skeleton or hard framework of the body of vertebrate animals

bone (46×), bones (5×), boons (1×)

bone-wort, *n.* A name given, on account of their supposed bone-healing properties, to several different plants, as the common Daisy, Golden-Rod, Centaury (*Erythræa*), Yellow Mountain Pansy, *Consolida minor*, and *Osmund*

Royal or Flowering Fern

banwart (1×)

book, *n.* Book

booke (5×)

borage, *n.* A genus of plants, giving its name to a family (*Boraginaceæ*)

borace (1×), borage (3×), burage (1×), burrage (1×)

border, *n.* A side, edge, brink or margin; the boundary line which separates one country from another, the frontier line

border (2×)

botch, *n.* A hump; a swelling; a tumour

boche (6×), boches (1×), bothes (1×)

both, *a.* The one and the other; referring to two specially designated persons or things

boothe (3×), both (1×), bothe (16×)

bottle, *n.* Bottle

bottell (2×)

bottom, *n.* The lowest part of anything, considered as a material thing

bothome (1×), botome (1×), bottom (2×), Bottome (5×)

bought, *n.* A hollow angle or bend in the body

bought (1×), boughte (1×)

bound → **bind**

bourtrees, *n.* The Elder-tree (*Sambucus nigra*)

bartre (1×), burtre (12×), burtrie (3×)

bow, *v.* To assume a bent or crooked shape, position, or attitude

bow (1×), bowe (2×), bowed (1×), bowid (1×), bowing (1×)

bowel, *n.* An intestine

bowell (6×), bowells (7×), bowles (1×)

bowl, *n.* A round vessel to hold liquids, rather wide than deep

bowle (2×)

bound → **bind**

box, *n.* A case or receptacle usually having a lid

box (1×), boxe (3×), boxes (4×)

braid, *v.* To intermix

braide (1×)

brain, *n.* The human brain

braines (1×), brayn (1×)

bramble, *n.* A rough prickly shrub; the blackberry-bush (*Rubus fruticosus*)

brymbell (1×), brymbull (1×)

bran, *n.* The husk of wheat, barley, oats, or other grain, separated from the flour after grinding

bran (1×), brane (1×)

brass, *n.* The general name for all alloys of copper with tin or zinc

bras (1×)

brawn, *v.* To harden; to render callous

brenninge (1×)

brawn, *n.* Flešhy part, muscle

brawne (2×)

bray, *v.* To beat small; to bruise, pound, crush to powder; usually in a mortar

braie (5×), bray (5×), braye (1×),

Brayed (1×), braying (1×), brey (1×)

brazen, *a.* Made of brass

brasen (1×)

bread, *n.* Bread

bread (12×), breade (1×)

break, *v.* To break

break (6×), breake (8×), breaking

(2×), breek (2×), breeke (1×),

breke (1×), brekings (1×),

brekith (1×), broken (32×)

breaking, *n.* The action of breaking

breaking (2×), breakinge (8×),

breking (3×)

brears → **brier**

breast, *n.* Breast

breast (2×), breasts (1×), brest

(3×), breste (1×), brests (1×)

breathe, *v.* To breathe

breadeth (1×), breathe (6×)

breed, *v.* To breed

bredd (2×), brede (1×), bredithe

(1×), breed (1×), breede (2×)

breer → **brier**

breme, *a.* Celebrated, brilliant, clear, loud, distinct

brimmest (1×)

breming → **brimming**

bren → **brine**

brenninge → **brawn**

brent, *n.* The smallest species of wild goose (*Bernicla brenta*), a winter visitant of the British coasts

brent (1×)

bresure → **bruise**

brey → **bray**

bridle, *n.* The head-gear of the harness of a horse or other beast of burden, consisting of a head-stall, bit, and rein, by which the animal is controlled and guided

brydle (1×)

brier, *n.* A prickly, thorny bush or shrub in general

brears (1×), breer (1×), brier (1×),

bryer (1×), bryere (1×), bryrie (1×)

brimmest → **breme**

brimming, *a.* That rises to the brim of its vessel, basin, or bed; that fills to overflowing

breming (1×)

brimstone, *n.* The common vernacular name for sulphur

brimstone (1×), brymestone (1×), brymestone (3×)

brine, *v.* To treat with brine: to steep, soak, pickle, wet, suffuse with brine

bren (2×)

bring, *v.* To bring

bring (6×), bringe (1×),
bringinge (1×), bringithe (1×),
brought (6×)

brisers → **bruise**

brisid → **bruise**

bristle, *n.* One of the stiff hairs that grow on the back and sides of the hog and wild boar

brystle (1×)

broad, *a.* Broad

broad (5×), brode (4×), broder (1×), broode (1×)

brob, *v.* To prick, pierce, or poke

broben (1×)

broom, *n.* A shrub, *Sarothamnus* or *Cytisus Scoparius* (family *Leguminosæ*), bearing large handsome yellow papilionaceous flowers

brome (4×), broome (2×)

brought → **bring**

brow, *n.* The arch of hair over the eye

browes (3×)

brown, *a.* Brown

brown (1×), browne (1×)

brownwort, *n.* A name of the Water-Betony (*Scrophularia aquatica*), and perhaps other species of *Scrophularia*

brownwoort (1×)

bruise, *v.* To crush or mangle with the heavy blow of something not edged or pointed; to injure by a blow which

discolours the skin but does not lacerate it

brisid (2×), bruised (1×), bruse (6×), brused (1×), brusid (5×),
Brusing (1×), brusing (1×),
brysid (1×)

bruise, *n.* A hurt or injury to the body by a blunt or heavy instrument, causing discoloration but not laceration of the skin; a contusion

bresure (1×), brisers (1×), bryse (1×)

brust(en)(ing)(inge) → **burst**

brydle → **bridle**

bryer(e) → **brier**

brymb(ell)(ull) → **bramble**

brym(e)stone → **brimstone**

bryrie → **brier**

bryse → **bruise**

brystle → **bristle**

bud, *n.* A little projection found at the axil of a leaf, composed of scales, which are small leaves, and forming the rudiment of a branch, cluster of leaves, or blossom

buddes (2×)

bugle, *n.* The English name of the plants belonging to the genus *Ajuga*

bugle (2×)

bugloss, *n.* A name applied to several boraginaceous plants, particularly the small corn (*Lycopsis* or *Anchusa arvensis*)

buglos (2×)
bull, *n.* A bull
 bull (1×)
bur, *n.* Any rough or prickly seed-vessel
 or flower-head of a plant
 bure (1×)
burage → **borage**
burgeon, *n.* A swelling bud, a young
 shoot of a plant
 burianes (1×), burions (1×)
buries → **berry**
burn, *v.* To burn
 burn (4×), burne (14×), burnet
 (2×), burnid (6×), burning (3×),
 burninge (4×), burnithe (1×),
 burnithh (1×), burnt (1×)
burning, *n.* The action of burning
 burninge (3×), burninges (1×)
burning, *a.* Characterised by great heat,
 raging, violent
 burning (6×)
burrage → **borage**
burst, *v.* To break the outer covering
 and discharge the matter
 brust (1×), brusten (1×)
bursting, *n.* The action of bursting
 brusting (4×), brustinge (1×),
 bursting (1×)
burtr(i)e → **bourtree**
bury, *v.* To bury
 bury (1×), burying (1×)
buryes → **berry**

bushel, *n.* A measure of capacity used for
 corn, fruit, etc., containing four pecks or
 eight gallons
 bushell (3×), bushells (1×),
 bussells (1×)
butter, *n.* The fatty substance obtained
 from cream by churning
 buter (1×), butter (20×)
button, *n.* Applied to various
 productions of art resembling a button
 in shape or function; a knob, handle,
 catch
 button (5×)
buy, *v.* To get possession of by giving an
 equivalent, usually in money
 bue (1×)
byle → **bile**
bynd(e) → **bind**
byrth → **birth**
bytain → **betony**
byting(e) → **biting**

C

caballine, *a.* Of or belonging to horses;
 equine
 caballyme (1×)
cake, *n.* A mass or concretion of any
 solidified or compressed substance in a
 flattened form
 cake (3×)

calamint, *n.* A genus of aromatic herbs, Calamintha (family *Labiatae*), including the Common Calamint (*C. officinalis*)

calaminte (1×)

calamus, *n.* A genus of palms comprising many species, the stems of which grow to an extraordinary length, and form canes or rattans

calamus (1×)

calcine, *v.* To reduce to quick-lime, or to an analogous substance, by roasting or burning

Calcioned (2×), calcionid (1×),

caltionid (1×)

caldron → **cauldron**

calewey, *n.* A kind of pear

Calwe (1×)

call, *v.* To name, give a name

call (1×), called (5×), callid (21×),

callyd (11×)

Calophony → **colophony**

calp, *n.* Local name of a species of dark-grey limestone occurring in Central Ireland

calp (2×)

Calwe → **calewey**

camomile, *n.* The name of a composite plant, *Anthemis nobilis*, an aromatic creeping herb, found on dry sandy commons in England

camamile (1×), Camomile (1×),

camomyle (3×)

camphor, *n.* A whitish translucent crystalline volatile substance, belonging chemically to the vegetable oils, and having a bitter aromatic taste and a strong characteristic smell

campher (1×), camphere (2×),

Canfrey (1×)

can, *v.* Can

can (34×), cann (4×), cannot

(18×), could (1×), gan (1×)

candle, *n.* A source of artificial light, consisting of a usually cylindrical body of wax, tallow, spermaceti, or other solid fat

candel (1×), candell (1×)

candy, *n.* Crystallised sugar, made by repeated boiling and slow evaporation, more fully called sugar candy

Candie (2×)

Canfrey → **camphor**

canker, *n.* An eating, spreading sore or ulcer; a gangrene

CANCERS (1×), Canker (35×),

Cankers (11×), kanker (3×)

canker, *v.* To infect or consume with canker

cankered (4×)

canvas, *n.* A strong or coarse unbleached cloth made of hemp or flax, used as the material for sails of ships

canvas (8×), canves (1×)

cap, *v.* To provide or cover with a cap

cappid (1×)
caper, *n.* A shrub (*Capparis spinosa*) in habit of growth like the common bramble, abundant on walls and rocky places in the South of Europe

caperons (1×)
capon, *n.* A castrated cock
 Caponn (1×), Capons (2×),
 Coipons (1×), copons (1×)

caraway, *n.* An umbelliferous plant (*Carum Carui*): its small fruits, commonly called caraway-seeds, are aromatic and carminative

careawaie (1×), **Carewey** (1×)
carbuncle, *n.* A name variously applied to precious stones of a red or fiery colour
 carbunckle (1×), carbunkles (2×)

care, *v.* To feel concern, be concerned, feel interest
 Care (2×)

care, *n.* Care
 care (1×)

carnose, *a.* Fleшы
 carnosa (1×)

carry, *v.* To transport, convey while bearing up

carie (2×)
carve, *v.* To cut
 cerven (1×)

case, *v.* To enclose in a case
 case (1×)

case, *n.* An event, occurrence, hap

case (1×)
cassia, *n.* An inferior kind of cinnamon
 Casie (1×)
cast, *v.* To throw or cause to fall; to dispose, arrange
 cast (25×), caste (1×), casten (2×),
 castene (1×), castes (1×), casting (3×), castithe (1×), casts (1×)

cat, *n.* Cat
 cat (1×), catt (1×)
cattle, *n.* A collective name for live animals held as property
 Cattell (2×)

cauldron, *n.* A large kettle or boiler
 caldron (1×), cawdron (1×)
cause, *v.* To be the cause of; to effect, bring about, produce
 cause (10×), caused (4×), causei (1×), causes (1×), causethe (1×),
 causid (10×), causithe (1×),
 causyd (1×)

cause, *n.* A cause
 cause (12×)

cauterize, *v.* To burn or sear with a hot iron or a caustic
 cautering (1×)

cawdron → **cauldron**

cease, *v.* To come to an end; to stop, discontinue
 cease (2×), cessithe (1×)

celandine, *n.* The name of two distinct plants, bearing yellow flowers

Celandyne (1×), celidonie (3×),
celidony (1×), Celidonye (1×),
celodonye (1×), celodyne (2×)

celery tree, *n.* The tree of the celery, an
umbelliferous plant (*Apium graveolens*)
cultivated for the use of its blanched
stalks as a salad and vegetable

Cellertre (1×)

celidony(e)(ie) → **celandine**

celodonye → **celandine**

celodyne → **celandine**

Ceney → **senna**

centaury, *n.* A plant, of which the
medicinal properties were said to have
been discovered by Chiron the centaur;
two species were distinguished,
Centaursion majus, and *C. minus*

centin (1×), centorie (4×)

cerecloth, *n.* Cloth smeared or
impregnated with wax or some
glutinous matter

cired cloothe (1×), seerclothe
(2×), sere clothe (1×)

certain, *a.* Determined, fixed, settled
certain (1×), certein (4×), certeyn
(3×), certeyne (1×)

ceruse, *n.* A name for white lead, a
mixture or compound of carbonate and
hydrate of lead

ceruse (2×)

cerven → **carve**

chafe, *v.* To warm, heat

chaife (1×), chauf (1×), chawf
(1×)

chafing, *n.* That chafes

chafing (4×)

chair, *n.* Chair

chaire (1×)

chalk, *n.* Chalk

chalk (1×)

chamber, *n.* A private room, chamber
chamber (4×)

chance, *n.* The falling out or happening
of events; the way in which things fall
out

chance (1×)

change, *n.* The act or fact of changing
chaunge (3×)

change, *v.* To change

change (2×), changid (2×)

chapter, *n.* Chapter

chapiter (1×), chapitour (1×),
chapter (2×)

char, *v.* To reduce by burning to
charcoal or carbon; to burn slightly or
partially, scorch

charede (1×)

charge, *v.* To load; to cause to bear,
hold, or receive

charge (4×)

chat, *n.* A name given to the catkin,
inflorescence, or seed of various plants

chatts (3×)

Chaw → **jaw**

cheek, *n.* The cheek

chekes (1×), chere (1×)

cheek-bone, *n.* The bone above the cheek forming the lower boundary of the orbits of the eyes

cheke bone (6×)

cheese, *n.* Cheese

chese (1×)

cheken mete → **chicken meat**

cheken wede → **chickweed**

chervil, *n.* A garden pot-herb (*Anthriscus Cerefolium*, formerly *Chærophylllum sativum*, family *Umbelliferæ*) the young leaves of which are used to impart an aromatic flavour to soups, stews, salads, etc.

chervell (1×), chervile (1×),

chervill (2×)

chestnut, *n.* The large edible seed or nut of the chestnut-tree

chesnutt (1×)

chew, *v.* To chew

chew (4×), chewid (1×), chewing (1×)

cheyves → **sheaf**

chicken meat, *n.* An old name for various plants, including endive

cheken mete (1×)

chickweed, *n.* A name now usually applied to a small weedy plant, *Stellaria media* (family *Caryophyllaceæ*), but formerly to many other plants more or

less allied

cheken wede (2×)

chicory, *n.* The plant *Cichorium Intybus* (family *Compositæ*), with bright blue flowers, found wild in the south of England, and elsewhere in Europe and Asia, and cultivated in various parts for its root; the plant *Cichorium Intybus* (family *Compositæ*), with bright blue flowers

Siccorie (1×), Sicurie (1×),
xicorie (1×)

child, *n.* Child

child (5×), childe (4×)

chimney, *n.* The passage or flue by which the smoke from a fire or furnace ascends and escapes

Chymney (1×)

chin, *n.* The chin

chin (1×), chyen (1×), Chyn (1×),
chyne (2×)

choler, *n.* Bile as one of the four humours of early physiology, supposed to cause irascibility of temper

cholerr (1×), Coler (4×), colere (1×), colers (1×), coller (1×)

choleric, *a.* Having choler as the predominant humour; of bilious complexion

choleryke (1×)

chop, *v.* To cut with a quick and heavy blow

chop (3×), Chopp (2×), choppid
(1×), choppinge (1×)

Chores → **core**

chy(e)n(e) → **chin**

Chymney → **chimney**

Chyves → **sheaf**

Ciatica → **sciatica**

cicotryne → **socotrine**

cicuta, *n.* A genus of poisonous umbelliferous plants, represented in Britain by the Water Hemlock, *C. virosa*. Formerly a name of the Common Hemlock

Cicotum (1×)

cinnamon, *n.* Cinnamon

Sinamound (2×), Synamon (2×),

synamond (2×), Synamound (1×)

cinquefoil, *n.* The plant *Potentilla reptans* (family *Rosaceae*), with compound leaves each of five leaflets

quint foyle (1×)

ciphac → **syphac**

cipres → **cypress**

citron, *n.* An ovate acid juicy tree-fruit with a pale-yellow rind

Cytrons (1×), sitrion (1×)

city, *n.* City

citie (2×)

clad, *v.* To cover as with clothing

claid (1×)

clam, *v.* To smear, daub, or spread unctuous matter on

clamyd (1×)

clap, *v.* To apply, place, put, set, or stick
clap (1×)

clarify, *v.* To make clear and pure
Clarifie (1×), clarified (11×)

clat, *n.* Seeds or pales sifted out of meal,
bran

Clate (2×)

clean, *a.* Clean

clean (5×), Cleane (9×), clene
(16×)

clean, *v.* To make clean
clene (1×), Clens (1×)

clean, *b.* Properly, completely
cleane (2×), cleen (1×), clene
(16×)

cleanse, *v.* To make clean, purify, free
from dirt or filth

clence (2×), clens (5×), clense
(1×), clensid (1×), cleansing (1×),
clensithe (1×)

cleanser, *n.* One who or that which
cleanses

clenser (1×)

clear, *v.* To make clear
CLEARE (1×)

clear, *a.* Bright, brilliant; translucent,
pellucid, free from sediment
cleare (1×), clere (2×)

cleave, *v.* To stick fast or adhere
cleave (1×)

close, *v.* To stop an opening; to shut; to

cover in

cloos (1×), cloosed (2×), close
(1×), closid (1×), closyd (1×)

close, *a.* Closed, shut

close (5×)

closely, *b.* So as to leave no passage out
or in

closelye (1×)

cloth, *n.* A cloth

cloathe (5×), cloothe (8×),
clooths (2×), cloots (1×), clote
(1×), cloth (3×), clothe (74×),
clothes (7×), clout (1×), cloute
(5×), cloutes (1×), clowt (3×),
Clowte (4×), clowtes (1×)

clothe, *v.* To dress

clethed (1×)

clove, *n.* One of the small bulbs which
make up the compound bulb of garlic,
shallot, etc.

cloves (1×), clovey (1×), clowes
(2×)

cloven, *a.* Divided lengthwise

cloven (1×)

clover, *n.* The common name of the
species of Trefoil (*Trifolium*, family
Leguminosæ)

colaver (1×), glover (2×)

clyster, *n.* A medicine injected into the
rectum, to empty or cleanse the bowels,
to afford nutrition

glister (1×)

cnarelle → **knar**

coal, *n.* A mineral, solid, hard, opaque,
black, or blackish, found in seams or
strata in the earth, and largely used as
fuel

coale (1×), Coales (1×)

coal, *n.* Coal

coles (1×)

coat, *n.* Coat

cote (1×)

cochee, *n.* A certaine composition of
Pills, which purge the head very strongly

cochee (1×)

cock, *n.* The male of the common
domestic fowl, *Gallus domesticus*

cok (1×)

cockle, *n.* The name of a plant applied
to *Lychnis* (or *Agrostemma*)

cokill (1×)

Cocomber sede → **cucumber seed**

cod, *n.* The husk or outer covering of
any fruit or seed; the scrotum

cod (1×), coddess (3×), coddess (3×)

coffin, *n.* A chest, case, casket

coffins (1×)

Coipons → **capon**

cold, *a.* Cold

Cold (10×), colde (8×), coold
(14×), could (13×), could (9×)

cole, *n.* A general name for various
species of Brassica

cole (1×)

Col(l)er(e) → **choler**

colewort, *n.* A general name for any plant of the cabbage kind, *genus Brassica*
colewoorte (1×), colwoorth (1×)

coliander, *n.* Applied to the Maiden-hair Fern (*Adiantum Capillus-Veneris*)
coliander (1×)

colic, *n.* A name given to severe paroxysmal griping pains in the belly, due to various affections of the bowels or other parts

Colik (2×), Colikk (1×), collick (1×), colyk (1×)

collop, *n.* A slice of meat fried (*frixia*) or broiled (*carbonella*)
collop (1×)

colophony, *n.* The dark or amber-coloured resin obtained by distilling turpentine with water

Calophony (2×), colophinie (1×), colophoine (1×), colophom (2×), colophome (1×), colophon (1×), colophonie (2×), Colophony (1×)

colour, *v.* To give colour to something
colorid (2×)

colour, *n.* Colour
Collour (1×), color (1×), colour (8×)

come, *v.* To move towards, approach
came (2×), come (21×), cometh (1×), coming (1×), comith (1×), comithe (7×), comme (9×),

commethe (1×), comminge (1×), commist (1×), commithe (2×), coome (8×)

comfortative, *a.* Strengthening, reviving (medicine, food, etc.)
comfortatyves (1×)

comfrey, *n.* The english name of *Symphytum officinale* (family *Boraginaceæ*)

Comfere (1×), comferie (1×), comfra (1×), comfrey (2×), conferye (1×), Cumph (1×)

comin → **cumin**

co(o)m(m)yn(e) → **cumin**

common, *a.* Common
Common (2×)

competent, *a.* Suitable, fit, appropriate
compitent (1×)

competently, *b.* Suitably; sufficiently, adequately
competently (1×)

conduct, *n.* A channel, passage
condyte (1×)

congeal, *v.* To congeal
congelid (1×)

conserve, *n.* A medicinal or confectionary preparation of some part of a plant
conserv (2×)

consider, *v.* To view or contemplate attentively, to survey, examine, inspect, scrutinise

consider (1×)
consolidation, *n.* The action of making solid, or of forming into a solid or compact mass

consolidation (1×)

consound, *v.* To heal, join together (wounds, fractures)

consounde (2×), consowdid (2×),

cosowdid (1×)

consultation, *n.* The action of consulting or taking counsel together

consultacione (1×)

consume, *v.* To burn up, reduce to invisible products, or to ashes

consumid (3×), consuming (1×)

consumption, *n.* Wasting of the body by disease; a wasting disease

CONSUMPTION (1×)

continual, *a.* Incessant, perpetual

continuall (1×)

continually, *b.* Continually

continuellie (1×)

continuance, *n.* Keeping up, going on with, maintaining, or prolonging

Continewance (1×),

continewnce (1×)

continue, *v.* To carry on, keep up, maintain

continew (5×), continewe (1×),

continuing (1×)

contrary, *a.* Contrary

contrarie (4×)

convenient, *a.* Suitable to the conditions or circumstances

convenient (4×)

cool, *v.* To make cool; to cause to lose heat or become less hot

cole (2×), Coole (1×)

cool, *a.* Cool

colde (1×)

copons → **capon**

copper, *n.* One of the well-known metals, distinguished by its peculiar red colour

coper (1×)

copperas, *n.* A name given from early times to the protosulphates of copper, iron, and zinc

coperas (1×), coperons (2×)

copperous, *a.* Coppery

coperouse (1×), coperows (1×)

coral, *n.* A hard-calcareous substance consisting of the continuous skeleton secreted by many tribes of marine coelenterate polyps for their support and habitation

corall (2×)

core, *n.* The dry horny capsule imbedded in the centre of the pulp and containing the seeds or pips of the apple, pear, quince, etc.

Chores (1×), core (4×)

coriander, *n.* An annual plant, *Coriandrum sativum*, family *Umbelliferae*,

with compound leaves and globose fruit

corriander (1×)

corn, *n.* The small hard seed or fruit of a plant

Corn (1×), corne (2×), cornes

(1×), corns (1×)

corner, *n.* The meeting-place of converging sides or edges

corners (1×)

corrosive, *a.* Having the quality of corroding

corrosyve (1×)

corrosive, *n.* A substance that corrodes by chemical action; an acid or the like

corrosiues (1×), corrosyves (1×),

corrycive (1×)

corrupt, *v.* To spoil or destroy (flesh, fruit, or other organic matter) by physical dissolution or putrid decomposition

corruptid (1×), corruptith (1×),

corruptithe (1×)

corrupt, *a.* Infected or defiled by that which causes decay

corrupt (9×)

corruption, *n.* Infection, infected condition

corruption (7×)

costard → **custard**

costive, *a.* Suffering from hardness and retention of the fæces

costif (1×), costiff (1×)

cotton, *n.* The white fibrous substance, soft and downy like wool, which clothes the seeds of the cotton-plant (*Gossypium*)

cotton (2×)

cotyledon, *n.* A genus of plants of the family *Crassulaceæ*, having thick succulent peltate leaves; the British species is *C. Vmbilicus*, popularly called navelwort or pennywort

cotilbon (1×)

cough, *n.* A cough

cowghe (1×)

could → **can**

counsel, *n.* Consultation, deliberation

counsell (5×)

counsel, *v.* To give or offer counsel or advice; to advise

counsell (5×)

count, *v.* To number, enumerate

cointid (1×)

cover, *v.* To cover

couered (1×), cover (9×), coverid (1×)

covering, *n.* That which covers or is adapted to cover, whether for protection, shelter, concealment, or adornment; a cover

coverings (1×)

cow, *n.* The female of any bovine animal (as the ox, bison, or buffalo)

cow (3×)

cowslip, *n.* The common name of *Primula veris*, a well-known wild plant in pastures and grassy banks, blossoming in spring, with drooping umbels of fragrant yellow flowers

cowselopp (1×), cowsloppe (1×)

crab, *n.* The common name for decapod crustaceous animals of the tribe Brachyura

crabbe (1×)

crammes → **crumb**

cramp, *n.* An involuntary, violent and painful contraction of the muscles, usually the result of a slight strain, a sudden chill, etc.

Cramp (1×), crampe (1×)

crawl, *n.* The action of crawling; a slow creeping motion

crewlls (1×)

cream, *n.* The consecrated oil used in anointing

creame (1×)

crewlls → **crawl**

crook, *v.* To bend into an angular or curved form; to distort from a straight line; to curve

croke (1×), croked (5×), crokid (1×)

crom(m)es → **crumb**

crop, *n.* The crop

crop (1×), cropp (1×), croppe (1×), cripes (6×), cropps (3×)

cross, *n.* A representation or delineation of a cross on any surface

cross (1×)

cross, *b.* From side to side, whether at right angles or obliquely; across, athwart, transversely

cross (1×)

crosswise, *b.* In the form of a cross; so as to intersect

cross wise (2×), crose wise (1×),

crosse wise (1×), crosswise (1×)

crowfoot, *n.* A name for various species of *Ranunculus* or Buttercup, properly those with divided leaves

Crowfoot (1×)

Crudd → **curd**

crumb, *n.* A small particle of bread

crammes (1×), cromes (4×),

Crommes (3×)

cruse, *n.* A small earthen vessel for liquids; a pot, jar, or bottle

cruise (1×)

crush, *v.* To dash together with the sound of violent percussion, to clash, crash

crushid (1×)

crust, *n.* The outer part of bread rendered hard and dry in baking

crust (2×)

cucumber seed, *n.* The seed of cucumber

Cocomber sede (1×)

cumin, *n.* An umbelliferous plant (*Cummin Cyminum*) resembling fennel

comen (1×), comin (1×),
commyn (4×), comyn (2×),
comyne (3×), Coommyn (1×)

Cumph → **comfrey**

cup, *n.* A drinking-vessel, or something resembling it

cupp (2×), cuppe (1×)

curable, *a.* Capable of being cured

curable (9×)

curd, *n.* The coagulated substance formed from milk by the action of acids

Crudd (2×)

cure, *v.* To heal, restore to health (a sick person of a disease); to treat surgically or medically with the purpose of healing

cured (1×), curid (1×), kurithe (1×)

cure, *n.* A particular method or course of treatment directed towards the recovery of a patient

cure (7×), cures (3×)

cushion, *n.* A case of cloth, silk, etc. stuffed with some soft elastic material, used to give support or ease to the body in sitting, reclining, or kneeling

quishions (1×)

custard, *n.* A kind of open pie containing pieces of meat or fruit covered with a preparation of broth or milk, thickened with eggs, sweetened,

and seasoned with spices, etc.

costard (1×)

cut, *n.* A stroke or blow with a sharp-edged instrument, as a knife, sword, etc.

cut (1×)

cut, *v.* To cut

cut (53×), cutt (5×)

cutting, *n.* The action of 'cutting'

cutting (9×), cuttinge (3×)

cypress, *n.* The Sweet *Cyperus* or Galingale

cipres (1×)

cytrons → **citron**

D

daffodil, *n.* The same as affodill; the genus *Asphodelus* (formerly including some allied plants)

daffodill (1×)

daily, *b.* Daily

dalye (1×)

daisy, *n.* The daisy, the common name of *Bellis perennis*, family *Compositæ*, a familiar and favourite flower of the British Isles and Europe generally, having small flat flower-heads with yellow disk and white ray (often tinged with pink), which close in the evening

daisie (1×), dasey (1×), dasies (1×), dasyes (1×), dayse (1×)

dandelion, *n.* A well-known Composite plant (*Taraxacum Dens-leonis* or *Leontodon Taraxacum*), abundant in meadows and waste ground throughout Europe, Central and Northern Asia, and North America, with widely toothed leaves, and a large bright yellow flower upon a naked hollow stalk, succeeded by a globular head of papp

dandelyon (2×)

danger, *n.* Danger

danger (2×)

dangerous, *a.* Dangerous

dangerous (1×)

dare, *v.* To dare

dar (1×)

dark, *a.* Dark

dark (1×)

dart, *n.* A pointed missile weapon thrown by the hand

darthe (5×)

dast → **dust**

date, *n.* The fruit of the date-palm (*Phœnix dactylifera*), an oblong drupe, growing in large clusters, with a single hard seed or stone, and sweet pulp

daites (1×), daits (2×), date (2×),

dates (1×)

day, *n.* The day

daie (45×), daies (47×), day (25×),

daye (16×), Dayes (19×), days (5×)

deadly, *b.* Causing death, or fatal injury; mortal, fatal

deadlie (3×), deadly (1×)

deafness, *n.* The state of condition of being deaf

deafnes (1×)

deal, *n.* Dealing; intercourse

dele (2×)

dealing, *n.* Acting towards others; way of acting, conduct, behaviour

dalyeng (1×)

dea(l)t(h)ea → **deute**

death, *n.* Death

deathe (4×), dethe (2×)

debate, *v.* To abate; to beat down, bring down, lower, reduce, lessen

debate (3×), debatid (1×)

dede → **die**

deed → **die**

deep, *b.* Deeply

depe (5×)

deep, *v.* To make deep, deepen

depe (4×)

deep, *a.* Having great or considerable extension downward

depe (10×), deper (1×)

deepness, *n.* The quality of being deep, or of considerable extension or distance downwards, or inwards

depenes (1×)

defensive, *a.* Having the quality of defending against attack or injury

defensyve (1×)
deform, *v.* To deform
 deformid (1×)
deintie → **deute**
delay, *v.* To weaken by admixture (as wine with water)
 delaie (1×), delay (1×), Delaye (1×)
delicate, *a.* Delightful, charming, pleasant, nice
 Delicate (1×), delycate (1×)
depart, *v.* To divide into parts, dispart
 depart (2×)
descend, *v.* To move or pass from a higher to a lower position
 descend (1×), descending (1×), discending (1×)
despise, *v.* To look down upon
 Dispise (1×)
destillation, *n.* The action of converting any substance or constituent of a substance into vapour by means of heat, and of again condensing this by refrigeration into the liquid form, by means of an alembic, retort and receiver, or a still and refrigeratory
 distillacion (1×)
deute, *n.* A kind of salve
 dealtea (3×), Deathea (1×), deintie (1×), dewte (8×), dewti (1×)
devise, *v.* To prepare with skill, make

ready, provide, purvey
 devise (3×), devised (1×)
dew, *n.* The moisture deposited in minute drops upon any cool surface by the condensation of the vapour in the atmosphere
 dew (1×)
diacatholicon, *n.* Old term for a laxative electuary
 diacatholicon (1×)
diachylum, *n.* A kind of ointment composed of vegetable juices
 diaculum (2×), Diaquilon (1×)
die, *v.* To die
 dead (9×), deade (2×), dede (1×), deed (1×), dye (2×)
diet, *n.* A diet
 diet (4×), dyet (1×)
diet, *v.* To fix, prescribe, or regulate the food of (a person, etc.) in nature or quantity, for a purpose
 diet (1×)
digestion, *n.* Digestion
 digestion (1×)
dight, *v.* To perform, do
 dight (19×)
dike, *n.* Extended to any water-course or channel, including those of natural formation
 dyke (1×)
diligence, *n.* Constant and earnest effort to accomplish what is undertaken

diligence (1×)
diligently, *b.* In a diligent manner
 diligentlie (1×)
dimple, *v.* To mark with, or as with,
 dimples
 dimple (1×)
dinner, *n.* Dinner
 dynner (1×), dynner (1×)
dip, *v.* To put down or let down
 temporarily or partially in or into a
 liquid
 dip (2×), dipp (3×)
descending → **descend**
discretion, *n.* The action of discerning
 or judging
 discrecion (1×)
disease, *n.* Illness, sickness
 diseas (5×), disease (4×), diseases
 (2×), diseses (1×), disseas (2×),
 dyseas (1×)
dish, *n.* A dish (made of glass, metal, or
 wood)
 dishe (10×)
disobedient, *a.* Refusing or failing to
 obey
 disobident (1×)
Dispise → **despise**
dissever, *v.* To divide into parts
 disseverid (1×)
dissolve, *v.* To melt or reduce into a
 liquid condition
 dissolued (1×), dissolve (1×),

dissolved (2×), dissolvid (1×)
distil, *v.* To subject to the process of
 distillation; to vaporize a substance by
 means of heat, and then condense the
 vapour by exposing it to cold
 distill (3×)
distillacion → **destillation**
dittany, *n.* A labiate plant, *Origanum*
Dictamnus, called also *Dictamnus*
Creticus or dittany of Crete; formerly
 famous for its alleged medicinal virtues
 dittain (1×), dittayn (1×), dytain
 (1×)
diverse, *a.* Diverse
 diuers (5×), divers (6×), dyvers
 (1×), dyverse (1×)
diversity, *n.* Diversity
 diuersitie (1×), diuersity (1×)
do, *v.* To do
 did (12×), didist (1×), do (58×),
 doe (6×), doest (1×), doing (2×),
 done (7×), donne (2×), doo (4×),
 doone (2×), doth (1×), dothe
 (6×)
dock, *n.* The common name of various
 species of the *genus Rumex* (family
Polygonaceae), coarse weedy herbs with
 thickened rootstock, sheathing stipules,
 and paniced racemes of inconspicuous
 greenish flowers
 dock (2×), dockan (1×), doka
 (1×), doken (1×), dokens (1×)

doctor, *n.* Doctor

doctors (1×), doctouris (1×)

doctrine, *n.* Instruction, teaching

doctrine (1×)

dog, *n.* Dog

dogg (1×)

do(u)ng(h)(e) → **dung**

double, *v.* To make double

dowbelid (1×)

double, *a.* Consisting of two members, things, or sets combined

dooble (3×), double (1×), dowble (5×), duble (1×)

doublet, *n.* A close-fitting body-garment, with or without sleeves, worn by men from the fourteenth to the eighteenth centuries

dublet (1×)

doubt, *n.* Doubt

dout (1×), dowl (1×)

doubtful, *n.* Involved in doubt or uncertainty

dowlfull (1×)

dove, *n.* A bird of the *Columbidæ*, or pigeon family

dove (2×), doves (2×)

down, *b.* Down

down (9×), downe (20×)

downward, *b.* Towards a lower place or position

downward (3×)

dozen, *n.* A group or set of twelve

dozen (2×)

drachm, *n.* A weight approximately equivalent to that of the Greek coin. Hence, in Apothecaries' weight = 60 grains, or 1/8 of an ounce

drachms (3×), dragme (1×), dram (1×), drame (1×), drames (1×), dramme (1×), drammes (1×), drams (3×)

dragons, *n.* A popular name of the dragonwort, *Dracunculus vulgaris* (formerly *Arum Dracunculus*)

dragance (1×), dragon (1×), dragons (2×)

draught, *n.* A quantity used as a specific measure of something drawn, extracted, or taken up

draught (4×), draughts (1×)

draw, *v.* To draw; to cause (anything) to move toward oneself by the application of force

draw (34×), drawe (6×), drawn (5×), drawethe (1×), drawing (3×), drawinge (3×), drawithe (3×), drawght (1×)

dread, *v.* To fear greatly, be in mortal fear of

dreade (1×)

dream, *n.* A dream

dreames (1×)

dreg, *n.* The sediment of liquors

dreggs (1×)

dress*ing*, *n.* The action of dressing
dress*ing* (1×)

drie → **dry**

drier, *n.* A thing that removes moisture
dryer (1×)

drift, *n.* A large mass of flowering plants
druff (1×)

drink, *n.* A drink
drink (16×), drinke (5×), drynk
(2×), drynke (1×)

drink, *v.* To drink
drink (53×), drinke (28×), dronk
(1×), dronken (1×), drunk (1×),
drunken (6×), Drynk (2×)

drive, *v.* To drive
driving (1×), dryve (3×)

drop, *v.* To fall in drops or globules; to
exude or distil in drops
drop (3×), dropp (1×), dropping
(2×), droppith (1×)

drop, *n.* A drop (of a liquid)
drop (3×), drope (1×), dropps
(3×)

dropsy, *n.* A morbid condition
characterised by the accumulation of
watery fluid in the serous cavities or the
connective tissue of the body

Dropsey (3×), dropsie (3×)

dry, *v.* To make dry
drie (20×), dried (5×), drieth
(2×), driethe (1×), dry (4×), drye
(6×), dyed (1×), dryeth (1×)

dry, *a.* Dry
drie (7×), drye (1×)

dryer → **drier**

dung, *n.* Excrementitious and decayed
matter employed to fertilise the soil
dong (1×), donge (1×), donghe
(3×), doung (5×), dounge (1×),
dung (1×), dunge (1×)

dura mater, *n.* The dense, tough,
outermost membranous envelope of the
brain and spinal cord
Dura mater (2×), dura matter
(3×)

dust, *n.* Earth or other solid matter in a
minute and fine state of subdivision
dast (1×), dust (1×)

dwel*l*, *v.* To abide or continue for a
time, in a place, state, or condition
dwellid (1×)

dye → **die**

dyet → **diet**

dyke → **dike**

dyn(n)er → **dinner**

dyseas → **disease**

dytain → **dittany**

dyvers → **diverse**

E

each, *a.* Each
each (1×), eche (30×)

ear, n. The ear

ear (5×), eare (11×), eares (2×),

ears (1×), eer (1×), ERRES (1×)

earnestly, b. In an earnest manner

ernestlye (1×)

earth, n. Earth

earthe (8×)

earthen, a. Made of baked clay

earthen (4×), erthen (3×), ethern (1×)

ease, v. To give ease (physically) to; to render more comfortable, relieve from pain, etc.

eas (1×), ease (3×), easid (1×)

easily, b. Easily

easelye (1×), easilie (1×), eassilie (1×), easylie (1×)

easy, a. Easy

easie (7×), easye (1×)

eat, v. To eat

eat (13×), eate (3×), eaten (2×),

eete (1×), eten (1×), eting (1×)

eder, n. Ivy

edere (1×)

edge, n. Edge

edge (1×)

eeke → **ache**

eel, n. The eel

eyle (1×)

effect, n. Something accomplished, caused, or produced; a result, consequence

efect (1×)

egg, n. Egg

egg (30×), egg. (1×), egge (21×),

egges (5×), eggs (6×)

eggplant, n. A popular name for the *Solanum esculentum*, originally given to the white-fruited variety, but afterwards extended to that which bears the purple fruit or Aubergine

erenwood (1×)

egremonie → **agrimony**

egremoyne → **agrimony**

egrimons → **agrimony**

egrymoin → **agrimony**

eisell, n. Vinegar

eysell (1×), eysill (1×)

elabour → **hellebore**

elbow, n. The outer part of the joint between the fore and the upper arm

elbow (2×), elbowe (4×)

elder, n. A low tree or shrub, *Sambucus nigra* (family *Caprifoliaceae*)

elder (9×), eldertre (2×)

elebore → **hellebore**

elecampane, n. A perennial composite plant, Horse-heal (*Inula Helenium*), with very large yellow radiate flowers and bitter aromatic leaves and root; formerly used as a tonic and stimulant

Elecampana (1×), elecampane (1×), elicampana (1×)

electuary, n. A medicinal conserve or

paste, consisting of a powder or other ingredient mixed with honey, preserve, or syrup of some kind

electuare (2×), electuarie (1×),
lectuarie (1×)

else, *b.* In another case, under other circumstances; otherwise, on any other supposition; if not

els (23×)

ember, *n.* A small piece of live coal or wood in a half-extinguished fire

ymbres (3×), ymbres (1×)

embrocation, *n.* A liquid used for bathing or moistening any diseased part

embrocacions (1×), embrocation (4×)

emerod, *n.* A disease characterised by tumours of the veins about the anus

emerods (1×)

emplaister, *n.* An external curative application, consisting of a solid or semi-solid substance spread upon a piece of muslin, skin, or some similar material

emplaisters (1×)

emplaster, *v.* To cover with a plaster

implastrid (1×)

empty, *v.* To empty

emptie (1×), emptijng (1×)

end, *n.* End

end (17×), endes (1×), ends (1×)

endive, *n.* The name of two species of Chicory (*Cichorium*, family *Compositæ*)

Endive (2×), endyve (2×)

enemy, *n.* Enemy

enmyes (1×)

engender, *v.* To produce, give existence to (living beings)

engendrid (1×), engendringe (1×), engendrith (1×), engendrithe (2×), gender (1×), genderid (1×), gendrid (1×)

english, *n.* English

englishe (3×)

enlarge, *v.* To increase the size of (a material object); to add to, augment

enlarge (3×), enlarged (1×)

enough, *a.* Sufficient in quantity or number

enough (2×), enoughe (4×), inoughe (2×), ynoughe (9×)

ensemble, *v.* To bring together, assemble

enseblid (2×)

enter, *v.* The action of entering; the power or right of entering

enter (3×), entrid (1×)

entreat, *n.* The action of the verb entreat

intreat (1×), intreats (1×), nitreat (1×)

erenwood → **eggplant**

epati(cum)(k) → **hepatica**

erbe → **herb**

erysipelas, *n.* A local febrile disease

accompanied by diffused inflammation of the skin, producing a deep red colour; often called St. Anthony's fire, or the rose

herisipula (2×)

escape, *v.* To escape

scape (1×)

esbe → **ash**

eshewood → **ashwood**

especially, *b.* In an especial manner; principally, chiefly

especially (1×)

etcetera, *b.* And the rest, and so forth, and so on

etc (1×)

euphrasy, *n.* A plant, *Euphrasia officinalis* (family *Scrophulariaceæ*), formerly held in high repute for its medicinal virtues in the treatment of diseases of the eye

eufor (1×), eufrace (1×), Ewfrace (1×), ewfraice (1×)

even, *n.* The latter part or close of the day; evening

even (14×)

even, *b.* Even

eaven (2×), even (22×)

evening, *n.* Evening

eaveninge (1×), evening (3×)

ever, *b.* Always, at all times; in all cases

euer (8×), ever (2×)

evermore, *b.* For all future time

euermore (1×)

every, *a.* Every

eueri (1×), euerie (23×), euey (31×), everi (1×), Everie (2×)

evil, *n.* Causing discomfort, pain, or trouble

evell (1×), evill (2×)

evil, *a.* Evil

evell (2×), evel (2×), evell (2×), evil (2×), evill (1×), eyvill (1×)

evil, *b.* In an evil manner; ill

evell (2×), evill (2×)

excellent, *a.* Excellent

excellent (2×)

excellently, *b.* Excellently

excellentie (1×)

experiment, *v.* To have experience of; to experience; to feel, suffer

experimentid (1×)

experiment, *n.* The action of trying anything, or putting it to proof

experimente (1×)

expulse, *v.* To drive or thrust out from a place; to eject

expulsid (1×)

extremely, *b.* Extremely

extremelie (1×)

eye, *n.* The eye

eēs (2×), eie (2×), eies (5×), eighe (1×), ein (1×), eine (2×), eye (12×), eyen (3×), eyn (2×), eyne (2×)

eyle → **eel**

eyr → **air**

eys(ell)(ill) → **eisell**

F

face, *n.* The face

face (12×), facie (1×), faice (2×)

fail, *v.* To be or become deficient

failithe (1×), falid (2×)

fail, *n.* Fail

faile (1×), failie (1×), fale (1×),

Fayle (1×)

faint, *a.* Wanting in strength or vigour

faint (1×)

fair, *a.* Fair

faier (2×), fair (13×), faire (6×),

fare (2×), fayer (1×), feir (3×)

fall, *n.* A dropping down from a high or relatively high position, by the force of gravity

fall (12×)

fall, *v.* To drop from a high or relatively high position

fall (6×), fallen (2×), fallenn (1×),

falling (3×), fallithe (5×)

far, *b.* Far

far (5×), fare (1×), ferther (1×)

fash, *n.* The tops of carrots, turnips or mangolds

fasshes (1×)

fast, *v.* To make fast to something; to attach with bonds or nails; to bind together

fast (4×), fasten (3×)

fast, *b.* Fast

fast (20×)

fasting, *n.* Abstaining from food

fasting (11×), fastinge (2×),

fasturing (1×)

fat, *n.* Fat

fat (2×), fatt (4×), fatts (2×)

fault, *n.* Deficiency, lack, scarcity, want of

fault (1×)

feather, *n.* One of the epidermal appendages of a bird

fedder (1×), fether (12×)

featherfew, *n.* Feverfew; the popular name of *Pyrethrum Parthenium*

fetherfoye (2×)

feeble, *a.* Lacking strength, weak, infirm

feble (3×), febler (1×)

feeble, *v.* To become or grow feeble

febelid (1×)

feebleness, *n.* The state or quality of being feeble

feblenes (2×)

feed, *v.* To feed

fedethe (1×), feede (1×)

feel, *v.* To feel

feele (1×), fele (3×), felithe (1×)

feeling, *n.* The faculty or power by which one feels

fealing (1×)

feet(e) → **foot**

feir → **fair**

felon, *n.* A small abscess or boil, an inflamed sore

felon (2×), felones (1×), felons (3×)

femitorie → **fumitory**

fence, *v.* To screen, shield, protect

fence (1×)

fennel, *n.* A fragrant perennial umbellifer (*Feniculum vulgare*) having yellow flowers, cultivated chiefly for its use in sauces eaten with salmon, etc.

fenell (4×), fennell (1×), fynkells (1×)

fenugreek, *n.* A leguminous plant (*Trigonella Fœnum Græcum*) cultivated for its seeds, which are used by farriers

Femgrece (1×), Fennegreke (2×), fenngreke (3×)

fern, *v.* To feed upon fern

fern (1×)

ferther → **far**

fetherfoye → **featherfew**

fervent, *a.* Hot, burning, glowing, boiling

fervent (1×)

fester, *n.* A superficial suppuration resulting from irritation of the skin

feaster (1×), feasters (1×), festoures (1×), festure (1×)

fetch, *v.* To go in quest of, and convey or conduct back

fetche (1×)

fete → **foot**

fether → **feather**

fever, *n.* Fever

fever (8×)

feverfew, *n.* The popular name of *Pyrethrum Parthenium*

feverfew (1×)

few, *a.* Few

few (4×), fewe (1×)

field, *n.* Field

feild (1×), feildes (1×)

fig, *n.* The fruit of the fig-tree or *Ficus*
figgs (2×)

fill, *v.* To fill

fill (15×), fillid (1×), fillithe (1×)

film, *n.* A morbid growth upon the eye
filme (1×), filmes (1×), fylme (1×), philme (1×)

filth, *n.* Putrid matter, corruption, rottenness

filthe (6×), fylthe (2×)

find, *v.* To find

find (2×), finde (3×), findes (1×), found (3×), founde (3×), fynd (4×), fynde (4×), fyndes (1×), fyndest (1×)

fine, *a.* Of superior quality, choice of its

kind

fyne (20×)

finely, *b.* In a fine manner

finelye (1×), fynely (1×), fynelye (1×)

finger, *n.* Finger

finger (19×), fingers (10×)

fire, *n.* Fire

fier (62×), fyer (36×)

firmament, *n.* The arch or vault of heaven overhead, in which the clouds and the stars appear

firmament (1×)

first, *b.* First

First (50×), Firste (15×), fyrst (2×)

first, *a.* First

first (14×), firstt (1×), Fyrst (4×)

fist, *n.* The fist

fist (1×)

fistula, *n.* A long, narrow, suppurating canal of morbid origin in some part of the body

fistula (9×), fistulaie (1×), FISTULE (13×), fistules (9×), fystule (1×)

fit, *n.* A sudden seizure of any malady attended with loss of consciousness and power of motion

fit (1×), fitt (5×), fyt (1×)

flake, *n.* A blemish, flaw, fleck

flakes (1×)

flank, *n.* The fleshy or muscular part of the side of an animal or a man between the ribs and the hip

flanks (1×)

flat, *a.* Horizontally level; without inclination

flat (1×)

flax, *n.* The plant *Linum usitatissimum* bearing blue flowers which are succeeded by pods containing the seeds commonly known as linseed

flax (1×), flaxe (3×)

flee, *v.* To run away from or as from danger

fle (1×), flea (1×)

fleme → **phlegm**

flesh, *n.* The flesh

fleche (1×), flesh (2×), fleshe (60×)

fleshly, *b.* In bodily form, corporeally; as regards the body, in the flesh

fleshie (1×), fleshlie (5×), fleshlye (1×)

flewm(e) → **phlegm**

flewre → **flower**

flint, *n.* A kind of hard stone, most commonly of a steely gray colour, found in roundish nodules of varying size

flint (1×)

flix → **flux**

flour, *n.* Flour

floore (1×), flour (1×), floure

(2×), flowr (2×), flowre (12×)
flower, *n.* A flower; the menstrual discharge
 flewre (1×), floore (1×), flours (3×), flowers (1×), flowre (2×), flowres (7×), flowrs (2×)
flush, *v.* To become suffused with warm colour; to become suddenly red or hot
 flushid (2×)
flux, *n.* An abnormally copious flowing of blood, excrement, etc. from the bowels or other organs
 flix (2×), flux (1×)
foil, *n.* Metal hammered or rolled into a thin sheet; often with the name of a metal prefixed
 foil (1×)
fold, *n.* A bend or ply, such as is produced when any more or less flexible object is folded
 fold (1×)
folio, *n.* A leaf of paper, parchment, etc.
 folio (1×)
follow, *v.* To follow
 folow (2×), folowing (2×), folowinge (1×), folowithe (1×)
fomentation, *n.* The application to the surface of the body either of flannels, etc. soaked in hot water, whether simple or medicated, or of any other warm, soft, medicinal substance
 fomentacion (3×), fomentacon

(1×)
foot, *n.* The foot
 feet (1×), FEETE (3×), fete (8×), foot (1×), foote (10×)
forbear, *v.* To abstain or refrain from
 forbere (1×)
fore, *a.* Situated or appearing in front, or in front of something else
 fore (1×)
forehead, *n.* That part of the face which reaches upward from the eyebrows to the natural line of the hair
 forehead (1×), forheade (1×)
foresay, *v.* To say beforehand, foretell
 forehead (3×), forehede (1×), foresaid (17×), foresaide (5×), foresayd (3×), foresayde (1×)
foreskin, *n.* The prepuce
 foreskyn (1×)
form, *v.* To give form or shape to
 forme (1×)
former, *n.* The first mentioned of two; opposed to latter
 former (1×)
forth, *b.* Forwards
 forth (2×), forthe (9×), furth (7×), furthe (78×)
forward, *b.* Forward
 forward (1×), forwarde (1×), frowarde (1×)
foul, *a.* Grossly offensive to the senses, physically loathsome

foule (2×), foulie (1×), fowl (1×),
fowle (1×)

found(e) → **find**

fox, *n.* A fox

fox (2×), foxe (1×)

frankincense, *n.* An aromatic gum resin,
yielded by trees of the *genus Boswellia*,
used for burning as incense

frankencence (2×), frankencens
(1×), Frankencense (1×),
frankensence (8×), frankensens
(1×), franksence (1×)

frantic, *a.* Affected with mental disease,
lunatic, insane; violently or ragingly mad
frontike (1×)

french, *a.* French

frenche (1×)

fresh, *v.* To make fresh

freshe (1×)

fresh, *a.* New, in contradistinction to
being artificially preserved
freshe (14×)

freshly, *b.* Newly; lately; recently

freshlie (1×)

fret, *v.* To consume; to rub, chafe

freat (2×), freated (1×), freatid
(1×), freating (1×), freatith (1×),
fret (7×), frete (4×), freted (1×),
fretid (2×), freting (1×), fretinge
(2×), fretith (1×), fretithe (2×),
frett (1×)

Frie → **fry**

friend, *n.* Friend

friend (1×)

frontike → **frantic**

frost, *n.* Frozen dew or vapour

frost (1×), Froste (1×)

frothy, *a.* Full of, covered with, or
accompanied by froth or foam; foamy
frothie (1×)

fry, *v.* To fry

Frie (4×), fry (1×), Frye (5×),
frying (1×)

full, *a.* Having within its limits all it will
hold; having no space empty
full (18×)

fully, *b.* In a full manner or degree

fullie (1×), fullye (1×)

fumitory, *n.* A plant of the *genus*
Fumaria (or the related *Corydalis*)

femitorie (1×), fumiter (1×),
fumiterre (2×)

fundament, *n.* The lower part of the
body, on which one sits; the buttocks
fundament (7×)

furnace, *n.* A boiler, cauldron, crucible
furnes (7×)

further, *b.* To or at a more advanced
point of progress
further (3×)

further, *v.* To help forward, assist
furthering (1×)

fyer → **fire**

fylme → **film**

fylthe → **filth**
fynd(e) → **find**
fyne → **fine**
fynele(e) → **finely**
fynkells → **fennel**
fyrst → **first**
fystule → **fistule**
fyt → **fit**

G

galbanum, *n.* A gum resin obtained from certain Persian species of *Ferula*
 gabanum (1×), galbanum (6×)

galingale, *n.* The aromatic root of certain East Indian plants of the *genera* *Alpinia* and *Kæmpferia*, formerly much used in medicine and cookery
 galang (1×)

gall, *n.* The secretion of the liver, bile
 gall (8×), galls (1×)

gallon, *n.* An English measure of capacity
 gallon (10×), gallons (10×), galon (2×)

gan → **can**

gape, *v.* To open the mouth wide in order to bite or swallow anything
 gape (2×)

garden, *v.* Garden
 garden (1×)

gargarise, *n.* A gargle
 gargarices (1×)

garlic, *n.* Garlic
 garlik (2×)

garth, *n.* A small piece of enclosed ground
 garthe (1×)

gather, *v.* To collect as harvest or annual produce
 gather (1×), gathering (1×),
 gether (3×)

gave → **give**

gean, *n.* The wild cherry (*Prunus avium*), tree and fruit
 geen (1×)

gelie → **jelly**

gender, *n.* Kind, sort, class
 genders (1×)

gend(er)(erid)(rid) → **engender**

general, *a.* General
 generall (1×)

gent, *n.* A man of gentle birth, or having the same heraldic status as those of gentle birth
 gent (1×)

gentle, *a.* Noble, excellent
 gentle (1×)

gently, *b.* In a gentle manner
 gentlye (1×)

germander, *n.* The name of the plants of the genus *Teucrium*
 germander (1×)

germany, *n.* Germany

almaine (1x)

get, *v.* Get

get (18x), gett (2x), gotten (2x)

gether → **gather**

gild, *v.* To cover entirely or partially with a thin layer of gold, either laid on in the form of gold-leaf or applied by other processes

gild (1x), gilt (1x)

ginger, *n.* The rhizome of the tropical plant *Zingiber officinale*, remarkable for its hot spicy taste

ginder (1x), ginger (5x), gynger (3x), 3in3iberis (1x)

give, *v.* To give

gave (1x), giue (11x), give (6x), gyve (12x), gyven (2x)

gladen → **gladiolus**

gladiolus, *n.* Any plant of the iridaceous genus *Gladiolus*, having sword-shaped leaves and spikes of brilliant flowers

gladen (1x)

glandule, *n.* A gland

glandiles (1x), Glandule (1x), glandules (4x), grandules (1x)

glar, *n.* Slime, mud

glare (1x)

glass, *n.* Glass

glas (8x), glasthe (1x), glass (2x), glasse (5x), gles (1x)

glassful, *n.* As much as fills a glass

glasfull (1x)

glister → **clyster**

glover → **clover**

glow, *v.* To be heated to the point of incandescence

Glowid (1x)

gnash, *v.* To strike together or grind the teeth

knashe (1x)

gnaw, *v.* To bite persistently so as to injure it or remove portions of it

gnawithe (1x)

go, *v.* To go

go (20x), goethe (2x), GOINGE (1x), goist (2x), goithe (2x), gone (7x), goo (2x), went (1x)

goat, *n.* A ruminant quadruped of the genus *Capra*

goat (2x), goats (2x), goots (1x), gote (1x)

gobbet, *n.* A part, portion, piece, fragment of anything which is divided, cut, or broken

gobbet (6x), Gobbett (2x), gobet (1x), goblet (1x)

god, *n.* God

god (15x), godes (1x), gods (1x)

goer, *n.* A foot

goer (1x)

gold, *n.* Gold

goold (2x), gould (2x)

goldes → **marigold**

good, *a.* Good

best (12×), beter (1×), better (24×), godd (1×), gode (1×), Good (111×), goodd (2×), goode (14×)

goodly, *b.* In a goodly or excellent fashion

goodlie (3×)

goose, *n.* A general name for the large web-footed birds of the sub-family *Anserinae* (family *Anatidae*)

goos (1×), goose (2×), gose (2×)

gotten → **get**

gourd, *n.* The large fleshy fruit of the trailing or climbing plants of the family *Cucurbitaceae*

goord (1×)

gout, *n.* A specific constitutional disease occurring in paroxysms, usually hereditary and in male subjects

Goute (2×), gowt (2×), gowte (4×), gowtes (1×)

grace, *n.* Favour, favourable or benignant regard or its manifestation

grace (14×), graice (1×)

grain, *n.* A grain of a plant

graines (3×), grains (3×), granes (2×), graynes (1×), grayns (1×)

gram, *n.* Gram

grames (1×)

grass, *n.* Grass

gras (1×), grasse (3×)

grate, *v.* To grate

grated (1×), gratid (1×)

gravel, *n.* A material consisting of coarse sand and water-worn stones of various sizes, often with a slight intermixture of clay, much used for laying roads and paths

gravell (2×)

gray, *a.* Gray

grae (1×), gray (1×), graye (1×)

grease, *n.* The fat part of the body of an animal

greace (16×), greas (1×), grec (1×), grece (14×), greece (1×)

great, *a.* Great

great (41×), greate (16×), greater (1×), gret (1×), grete (1×), greter (1×), grether (1×)

greatly, *b.* To a great extent; extensively, exceedingly

greatlie (1×), greatlye (1×), gryetlye (1×)

greatness, *n.* The attribute of being great in size, extent or degree

greatnes (2×)

greek, *a.* Greek

greeke (1×)

green, *a.* Green

green (1×), grene (14×)

grevaunce → **grievance**

greve → **grieve**

grew(e) → **grow**

grievance, *n.* The infliction of wrong or hardship on a person; injury, oppression

grevauunce (1×)

grieve, *v.* To bring trouble or harm to; to cause damage to

greve (2×), greved (1×)

grind, *v.* To reduce to small particles or powder by crushing between two hard surfaces

Grend (2×), grind (3×), grinde (1×), grinding (1×), ground (14×), grounde (2×), grownd (3×), grynd (4×), grynde (1×), grynding (1×), gryndinge (1×)

grip, *n.* A small open furrow or ditch

grip (1×), gryp (1×)

gristly, *b.* Pertaining to, or of the nature of gristle; consisting or full of gristle; cartilaginous

grystly (1×)

gromwell, *n.* The common name for any of the plants of the *genus Lithospermum*

gromell (2×), grommell (1×)

grot, *n.* A fragment, particle

groat (1×), groats (1×), groote (2×), groots (1×), grots (1×), growt (1×)

ground, *n.* The bottom; the lowest part or downward limit of anything

ground (6×)

grow, *v.* To grow

grew (2×), grewe (1×), greweng

(1×), grewithe (3×), grow (5×), growe (1×), grown (2×), groweth (1×), growing (3×), growinge (1×), growithe (3×), growthe (1×)

grynd(e) → **grind**

gryp → **grip**

grystly → **gristly**

gum, *n.* A viscid secretion issuing from certain trees and shrubs, which hardens in drying but is usually soluble in cold or hot water

gomes (1×), gomme (1×), gooms (1×), gume (4×), gumes (6×), gumm (1×), gummes (1×)

gum ammoniac, *n.* A gum-resin, of peculiar smell, and bitterish taste, the inspissated juice of an umbelliferous plant (*Dorema Ammoniacum*)

gum ammoniac (1×), gume amonac (1×)

gut, *n.* The contents of the abdominal cavity; the bowels, entrails

gut (3×), guts (1×), gutts (3×)

gutter, *n.* A watercourse, natural or artificial

gutter (1×)

gyle-fat, *n.* The vat in which the wort is left to ferment

gylefat (2×), gylefatt (1×)

gyve(n) → **give**

gwynde → **wind**

H

hair, n. Hair

heare (1×), heeres (2×), heire (2×), heres (1×)

hairif, n. A widely-diffused popular name of Cleavers or Goose-grass, *Galium Aparine*

heyrif (1×)

hable → **able**

habundance → **abundance**

half, a. Half

half (110×), halfe (2×)

hand, n. Hand

hand (24×), hande (6×), handes (2×), hands (7×)

handful, n. A handful

handful (1×), handfull (60×), handfule (1×)

hang, v. To hang

hangithe (1×), hung (2×)

hap, v. To turn to the right

hap (1×)

happen, v. To happen

hopenithe (1×), happen (6×), happenithe (9×), HAPPENS (2×)

hard, v. To be or become hard

harding (1×)

hard, b. Hard

hard (16×), herd (1×)

hard, a. Hard

hard (16×), harde (7×), herd (1×)

harden, v. To render or make hard

harden (1×), hardened (1×)

hardness, n. The quality or condition of being hard

hardnes (3×)

hare, n. A rodent quadruped of the *genus Lepus*, having long ears and hind legs, a short tail, and a divided upper lip

hare (3×)

hare-hound, n. A dog for haunting hares

harehounde (1×), herehound (1×), horehownd (1×)

harm, n. Evil (physical or otherwise) as done to or suffered by some person or thing

harm (1×)

harm, v. To do harm (to); to injure (physically or otherwise)

herm (1×)

harsh, a. Disagreeably hard and rough to the touch; coarse in texture; rugged

harsh (1×)

hart, n. The male of the deer

harts (2×)

hart(e) → **heart**

has(s)ill nut → **hazel-nut**

haste, n. Urgency or impetuosity of movement resulting in or tending to swiftness or rapidity

haste (1×)
hastily, *b.* Quickly, speedily,
 expeditiously

hastelie (1×)
hattrel, *n.* The apex or crown of the
 head; also, the nape of the neck; the
 neck

hatrell (1×), hatterell (2×),
 hattrell (1×)

haunt, *v.* To haunt

hawnt (1×)

have, *v.* To have

had (11×), haist (5×), haith (6×),
 haithe (1×), hast (5×), hath (6×),
 hathe (36×), haue (90×), have
 (11×), having (5×), haythe (1×)

haver, *n.* Oats

haven (1×), haver (2×)

haw, *n.* The fruit of the hawthorn

hawes (2×)

hawthorne, *n.* A thorny shrub or small
 tree, *Crataegus Oxyacantha*, extensively
 used for forming hedges

hawthorne (1×)

hay, *n.* Hay

hay (1×), haye (1×)

hayhove, *n.* The herb ground ivy

heyhaue (1×), heyhowe (1×)

hazel, *n.* A bush or small tree of the
 genus *Corylus*, having as its fruit a nut

Asill (1×)

hazel-nut, *n.* The nut of the hazel, a

well-known fruit

hasill nut (1×), hassill nut (1×)

head, *n.* Head

head (33×), heade (15×), heades
 (2×), hede (8×), heed (2×), heede
 (4×), heedes (1×)

headache, *n.* An ache or continuous
 pain, more or less deep-seated, in the
 cranial region of the head

headeache (1×)

heal, *v.* To make whole or sound in
 bodily condition

heal (3×), heale (66×), healid
 (12×), healing (5×), healinge
 (2×), healithe (6×), healyd (2×),
 hele (22×), heled (1×), helid (3×),
 heling (2×), helinge (1×), hole
 (12×), holed (2×), hoole (3×)

health, *n.* Soundness of body

healthe (1×)

hear, *v.* To hear

hear (1×), herd (1×)

heare → **hair**

hearing, *n.* Perception by the ear or
 auditory sense

hering (1×), heringe (1×)

heart, *n.* Heart

hart (1×), harte (6×), harts (1×),
 hert (4×), herte (1×), herthe (1×),
 herts (3×)

heartwort, *n.* The plant *Aristolochia*
Clematitis, also called birthwort

hertwoort (1×)
heat, *n.* The quality of being hot
 heat (4×), heate (3×), heats (1×),
 heet (1×), hete (6×)
heat, *v.* To make hot, to warm
 heat (6×), heate (2×), heet (1×)
heaviness, *n.* The state or quality of
 being heavy
 hevines (1×)
heavy, *a.* Heavy
 hevie (2×)
hede → **heed**
hedge, *n.* Hedge
 heddge (1×), hedge (3×)
heed, *n.* Careful attention, care,
 observation, regard
 hede (6×)
heet → **heat**
heere → **hair**
heire → **hair**
hellebore, *n.* A name given to certain
 plants having poisonous and medicinal
 properties, reputed as specifics for
 mental disease
 elabour (1×), elebore (5×),
 helebour (1×)
help, *v.* To help
 help (13×), helpe (4×), helpithe
 (1×), holpe (1×), holpen (2×)
hemlock, *n.* The common name of
Conium maculatum, a poisonous
 umbelliferous plant, having a stout

branched stem with purplish spots,
 finely divided leaves, and small white
 flowers
 humlocks (1×)
hemp, *n.* An annual herbaceous plant,
Cannabis sativa
 hempe (1×)
hen, *n.* A hen
 hen (3×), hene (2×), hennes (1×)
henbane, *n.* The common name of the
 annual plant *Hyoscyamus niger*, a native
 of Europe and northern Asia, growing
 on waste ground, having dull yellow
 flowers streaked with purple, viscid stem
 and leaves, unpleasant smell, and
 narcotic and poisonous properties
 henbain (1×), henbaine (1×),
 henbane (1×), hennebell (1×)
hennebell → **henbane**
hepatica, *n.* A subgenus or section of
 the genus *Anemone*
 epatic (2×), epaticum (1×),
 epatik (2×), hepatica (1×)
herb, *n.* A plant of which the stem does
 not become woody and persistent (as in
 a shrub or a tree)
 erbe (1×), hearbes (1×), hearbs
 (1×), herb (4×), herbe (11×),
 herbes (26×), herbs (8×)
herb bennet, *n.* *Geum urbanum* (family
Rosaceae), a common European wayside
 plant with yellow flower

herb benet (1×)
herb John, *n.* St. John's-wort,
Hypericum perforatum

herb Iohn (1×), herbe Iohn (1×),
 herbe John (1×)

herb Robert, *n.* The English name for a
 common wild species of Crane's-bill or
Geranium (*G. Robertianum*), with
 divided leaves and light reddish purple
 flowers

herb Robert (1×), herbe robert
 (1×)

herb water, *n.* A medicinal infusion of
 herbs

herbewater (1×)

herd, *n.* A great number, a mass
 herdes (1×), herds (1×)

here, *b.* Here

HERE (5×)

herebound → **hare-hound**

here → **hair**

hereafter, *b.* After, in this writing, book,
 or place

hereafter (2×)

herm → **harm**

hernia, *n.* A tumour formed by the
 displacement and resulting protrusion of
 a part of an organ through an aperture,
 natural or accidental, in the walls of its
 containing cavity

hernia (1×)

herisipula → **erysipelas**

hertwoort → **heartwort**

hete → **heat**

hevie → **heavy**

hevines → **heaviness**

heyb(aue)(owe) → **heyhove**

heyrif → **hairif**

hiccup, *n.* A hiccup

hickop (1×)

hide, *v.* To hide

hidd (1×), hyde (2×)

high, *a.* High

highē (2×), higher (1×)

highly, *b.* Highly

highelie (1×)

hill, *n.* A hill

hill (1×)

hillwort, *n.* An old name of Pennyroyal
 (or Wild Thyme)

hilwoort (1×)

hinge, *v.* To bend (anything) as a hinge

hing (7×), hingening (1×),

hinging (1×), hingithe (2×)

hip, *n.* The projecting part of the body
 on each side formed by the lateral
 expansions of the pelvis and upper part
 of the thigh-bone

hipp (3×), hippe (1×), hipps (1×)

hippocras, *n.* A cordial drink made of
 wine flavoured with spices, formerly
 much in vogue

Ipocras (1×)

hock, *n.* A general name for various

malvaceous plants, as the Common and Marsh Mallow and the Hollyhock

hock (7×), hockes (2×), hok (1×),
hoke (1×)

hog, *n.* A swine reared for slaughter
hoggs (1×)

hogshead, *n.* A large cask for liquids,
etc.

hogesheed (1×), hoggshead (1×)

hold, *v.* To hold

hold (2×), holde (2×), holden
(1×), holdinge (1×), hoold (1×),
hoolden (1×), hould (6×), houlde
(2×), houlden (2×)

hole, *n.* A hole

hole (92×), holes (6×), hooles
(1×)

hole → **heal**

hollow, *a.* Having a hole or cavity
inside; having an empty space in the
interior

holow (1×), holowe (5×)

hollowness, *n.* The quality or condition
of being hollow

holones (1×)

holp → **help**

holy, *a.* Holy

holie (1×)

home, *b.* To one's home

home (2×)

honey, *n.* Honey

honie (23×), hony (10×), honye

(16×)

hook, *v.* To make hook-like or hooked
hooked (1×), hooke (1×)

hook, *n.* A length of metal, or piece of
wood or other material, bent back, or
fashioned with a sharp angle

hooke (1×)

hoole → **heal**

hop, *n.* The ripened cones of the female
hop-plant, used for giving a bitter
flavour to malt liquors, and as a tonic
and soporific

hopps (2×)

horehound → **hare-hound**

horn, *n.* Horn

horne (1×)

horse, *n.* A horse

hors (1×), horse (1×)

horse-mint, *n.* A name applied generally
to the wild mints

horse mynts (1×)

hose, *n.* An article of clothing for the
leg; sometimes reaching down only to
the ankle as a legging or gaiter

hose (1×)

hot, *a.* Hot

hoote (15×), hote (53×)

houseleek, *n.* The plant *Sempervivum
tectorum*, a succulent herb with pink
flowers and thick stem and leaves

houseleek (1×), houseleke (1×),
housleke (1×)

hound, *n.* A dog

hound (1×)

hound's-tongue, *n.* The *genus* *Cynoglossum* of boraginaceous plants, as the species *C. officinale*; Dog's tongue

houndestounge (1×)

hour, *n.* An hour

houre (3×), heures (7×), hours (4×), howr (4×), howre (12×), howres (9×), howrs (5×)

hourt → **hurt**

house, *n.* House

hows (2×), howse (1×)

how, *n.* A hill, hillock

howes (1×)

how, *b.* How

how (8×)

hows(e) → **house**

hull, *n.* The shell, pod, or husk of pease and beans

hull (1×), hulles (1×)

humbly, *b.* Humbly

humblelie (1×)

humlock → **hemlock**

humour, *n.* Any fluid or juice of an animal or plant, either natural or morbid

humor (2×), humors (1×), humour (4×), humours (4×)

hung → **hang**

hurt, *v.* To hurt

hourt (1×), hurt (4×), hurte (12×), hurted (2×), hurtid (4×),

hurting (3×), hurtinge (1×)

husk, *v.* To remove the husk from, to deprive of the husk

huskid (1×)

hyde → **hide**

hyssop, *n.* A small bushy aromatic herb of the *genus* *Hyssopus*

Isope (1×), ysop (2×), ysope (1×), ysopp (3×)

I

iaggid → **jag**

Iaw → **jaw**

Iawnes → **jaundice**

iche → **ache**

idle, *n.* Void of any real worth, usefulness, or significance; leading to no solid result

ydle (2×)

ignorance, *n.* Ignorance

ignorance (1×)

ill, *a.* Evil, in the widest sense

ill (1×)

illness, *n.* Illness

ylnes (2×)

immediate, *a.* Immediate

imiedate (1×), imediatlie (1×)

immediately, *b.* Immediately

immediatlye (2×)

immovable, *a.* That cannot be moved

unmoveble (1×)
implastrid → **emplaster**
impostume, *n.* A purulent swelling or cyst in any part of the body; an abscess
 Imposteme (1×), impostemes (1×), impostume (6×)
inch, *n.* A measure of length, the twelfth part of a foot
 inches (1×), ynche (6×), ynches (1×)
incontinent, *a.* Not continent; wanting in self-restraint
 incontinent (1×)
incontinently, *b.* In an incontinent manner; loosely, unchastely
 Incontinentlie (1×),
 incontinently (1×),
 incontinentlye (1×)
incorporate, *v.* To combine or unite into one body or uniform substance
 incorporate (3×)
incurable, *a.* Incapable of being healed by medicine or medical skill
 vncurable (4×)
infect, *v.* To infect; to spoil or corrupt by noxious influence, admixture, or alloy
 infected (3×), infectid (3×)
infrigidate, *v.* To make cold or frigid; to cool
 infrigidate (1×)
infuse, *v.* To pour in

infuse (1×)
ink, *n.* Ink
 ynke (1×)
inaturall → **unnatural**
inner, *a.* Situated more within; more or further inward
 Inder (1×), iner (1×), inner (1×),
 ynnere (5×)
inoughe → **enough**
inside, *n.* The inner side or surface
 Inside (1×)
instead of, *b.* In place of
 in stede of (3×), in steed of (2×)
instillation, *n.* The action of instilling; introduction (of a liquid) drop by drop
 instillage (1×)
instrument, *n.* Instrument
 Instrument (3×), Instruments (1×)
intent, *n.* The act or fact of intending or purposing; intention, purpose
 intent (2×)
intermeddle, *v.* To meddle or mix together; to intermingle
 intermeddle (1×)
intreat → **entreat**
inward, *a.* Situated within; that is the inner or inmost part
 inward (4×), inwarde (1×)
inwardly, *b.* In, on, or in reference to, the inside or inner part
 inwardlie (2×), Inwardly (1×)

ioice → **juice**

ioin(e) → **join**

ioint(e) → **joint**

iont(e) → **joint**

iount → **joint**

ioynt(e) → **joint**

ioynid → **join**

ioperdy → **jeopardy**

Ipocras → **hippocras**

iput → **put**

iron, *n.* Iron

yrone (18×), yrone (1×)

Isope → **hyssop**

issue, *n.* An incision or artificial ulcer made for the purpose of causing a discharge

issue (3×)

italy, *n.* Italy

Italye (1×)

itch, *v.* To have or feel irritation of the skin, such as causes an inclination to scratch the part affected

yeke (1×), yekethe (1×),

YEKING (1×), yokethe (1×),

ytche (2×)

Iu(i)ce → **juice**

iudge → **judge**

Iune → **june**

iust → **just**

iustlie → **justly**

Ivce → **juice**

ivy, *n.* A well-known climbing

evergreen shrub (*Hedera Helix*), indigenous to Europe and parts of Asia and Africa, having dark-green shining leaves, usually five-angled

Ive (1×), Ivi (1×), Ivie (1×), yve

(2×), yvie (4×)

J

jag, *v.* To make indentations in the edge or surface of; to make ragged or uneven by cutting or tearing

iaggid (1×)

jaundice, *n.* A morbid condition caused by obstruction of the bile, and characterised by yellowness of the conjunctiva, skin, fluids, and tissues

Iawnes (2×)

jaw, *n.* Jaw

Chaw (1×), Iawes (1×)

jelly, *n.* An article of food, consisting chiefly of gelatin, obtained from various animal tissues, as skin, tendons, bones, etc.

gelie (1×)

jeopardy, *n.* Risk of loss, harm, or death; peril, danger

ioperdy (1×)

join, *v.* To put together, to unite one thing to another

ioin (1×), ioine (2×), ioned (1×),

ioynid (1×)

joint, *n.* A junction; an arrangement, structure, or mechanism in an animal body, whereby two bones are fitted together

ioint (20×), iointe (6×), iointes (1×), ioints (1×), ionte (3×), iounts (1×), ioynt (5×), ioynite (1×)

judge, *v.* To form an opinion about; to judge

iudge (1×)

juice, *n.* The watery or liquid part of vegetables or fruits, which can be expressed or extracted

ioice (1×), Iuce (37×), Iuice (16×), Iuices (1×), Ivce (1×)

june, *n.* June

Iune (1×)

just, *b.* Just

iust (2×)

justly, *b.* Uprightly; righteously

iustlie (4×)

K

kale, *n.* A generic name for various edible plants of the *genus Brassica*

keall (1×)

kanker → **canker**

keall → **kale**

keel, *v.* To cool; to cause to lose heat
keelee (3×), kele (6×), kelid (1×)

keep, *v.* To keep
keep (1×), keepe (1×), kepe (48×), keping (1×), kepith (1×), kept (1×)

kell, *n.* A net for wrapping something in
kell (2×)

kernel, *n.* A seed
kernells (1×), kyrnells (2×)

kidney, *n.* Kidney
kidney (1×)

kill, *v.* To kill
KILL (4×), kyll (1×)

kind, *n.* The character or quality derived from birth or native constitution
kind (1×), kinde (1×), kynde (1×)

kindly, *b.* In the way suitable or appropriate to the nature of the thing
kyndelie (1×)

knar, *n.* A rugged rock or stone
cnarelle (1×), qnarell (2×), qnarrell (4×)

knashe → **gnash**

knead, *v.* To mix and work up into a homogeneous plastic mass, by successively drawing out, folding over, and pressing or squeezing together
kneade (3×), knede (6×)

knee, *n.* The knee
kne (2×), knee (2×), knees (2×)

knife, *n.* A knife

knife (4×), knyfe (1×)

knit, *v.* To tie in or with a knot

knit (4×), knyt (1×)

knob, *n.* A rounded protuberance or swelling on the skin or on a bodily organ

knobbes (2×)

knock, *v.* To strike with a sounding blow

knock (1×)

knop, *v.* To furnish or adorn with knobs; to stud

knoppid (1×)

knot, *n.* A knot

knot (4×), knott (1×), knotts (2×)

know, *v.* To know

knew (2×), know (8×), knowe (6×), knowen (4×), knowing (1×), known (1×), knowne (2×)

knowledge, *n.* Knowledge

knowledge (1×)

knur, *n.* A hard excrescence, swelling, or concretion in the flesh

KNURRES (2×)

kurithe → **cure**

kyll → **kill**

kynde → **kind**

kyndelie → **kindly**

kyrnells → **kernel**

ƒ

laborious, *a.* Characterised by or involving labour or much work; toilsome

laboriouse (1×)

labour, *v.* To work out in detail, to elaborate

labor (1×)

ladder, *n.* A ladder

ladder (3×)

ladle, *n.* A large spoon with a long handle and cup-shaped bowl, used chiefly for lading liquids

laddell (1×)

lain, *n.* A layer, a stratum

laint (1×)

Laishe → **latch**

lamb, *n.* The young of the sheep

lambes (1×)

lancet, *n.* A small lance, a dart

lancet (3×), lancett (1×), launcet (1×), launcett (2×)

langue de bœuf, *n.* A name variously applied to certain boragineous and other plants with rough leaves, as *Echium vulgare*, *Helminthia echiodes*, *Borrago officinalis*, etc.

langdebeffe (1×), lange de boeff (2×), langue de boeff (1×)

lannworts → **lungwort**

lap, *v.* To coil, fold, wrap

lap (3×), lapis (2×), lapp (4×),
lapped (1×)

lard, *n.* The fat of a swine; (fat) bacon or pork

lard (1×), larde (5×)

large, *a.* Ample, wide, great

large (11×), larger (4×)

largely, *b.* In a large manner

largelie (1×)

last, *a.* Last

last (7×)

last, *b.* Last

last (9×)

latch, *n.* A loop or noose; a gin, snare

Laishe (1×)

late, *a.* Late

latter (1×)

latin, *n.* Latin

laten (1×), latten (2×)

latten, *n.* A mixed metal of yellow colour, either identical with, or closely resembling, brass

laten (1×)

laurel, *n.* The bay-tree or bay-laurel, *Laurus nobilis*

Lawrell (1×)

Lava(che)(ge) → **lovage**

lavender, *n.* The plant *Lavandula vera* (family *Labiatae*), a small shrub with small pale lilac-coloured flowers, and narrow oblong or lanceolate leaves

lavander (4×)

lawn, *n.* A kind of fine linen, resembling cambric

laund (1×), lawnde (1×)

lax, *n.* Looseness of the bowels, diarrhoea; a laxative medicine, an aperient

lax (2×), laxe (1×)

lay, *v.* To place close to; to put to for a purpose, to apply

lai (1×), laid (11×), laie (18×),

laing (1×), lay (85×), layd (1×),

laye (16×), ley (43×), leye (2×)

leach, *n.* A dish consisting of sliced meat, eggs, fruits, and spices in jelly or some other coagulating material

leche (1×)

lead, *n.* Lead

lede (2×), leed (1×)

lead, *v.* To cover with lead; to conduct, guide

leded (1×), ledithe (1×)

leaf, *n.* The leaf of a plant

leaf (6×), leafe (5×), leaffe (1×),

leaves (25×), leavs (6×), leef (2×),

leves (22×), levinge (1×)

lean, *v.* To incline the body against an object for support

lenethe (1×)

leasurelie → **leisurely**

leather, *n.* Leather

lether (8×)

leave, *v.* To leave

leave (5×), left (1×), leve (6×)

leaven, *n.* A substance which is added to dough to produce fermentation

leven (3×)

lectuarie → **electuary**

lee, *n.* The sediment deposited in the containing vessel from wine and some other liquids

lee (1×), lies (2×)

leed, *n.* The grass *Glyceria aquatica*

lead (2×), leade (1×), lede (1×),

leed (1×)

leek, *n.* The leek, a culinary herb, *Allium Porrum* (family *Liliaceæ*)

leeke (1×), leekes (3×), leeks (1×),

leikes (1×), leiks (3×), leyk (1×)

left, *a.* Left

left (3×)

leg, *n.* One of the organs of support and locomotion in an animal body

leg (1×), legg (13×), legge (1×),

leggs (8×)

leisure, *n.* Leisure

leysure (1×)

leisurely, *b.* At leisure, without haste

leasurelie (1×)

lemon, *n.* A lemon

lemonndes (1×)

length, *v.* Length

lengthe (3×), lengthe (2×)

let, *v.* To let

let (154×), lett (1×), lettid (1×),

letting (4×)

letarge → **litharge**

lettuce, *n.* Lettuce, any plant of the genus *Lactuca*

Letice (1×), lettice (2×), lettuce (1×)

lie, *v.* To lie

lie (13×), liethe (2×), lye (24×),

lyen (3×), lyeng (1×), lyeth (1×),

lyethe (2×), lying (2×)

lies → **lee**

life, *n.* Life

life (2×), lyfe (1×)

lift, *v.* To raise into the air from the ground, or to a higher position

lift (4×)

lifting, *n.* The action of the verb lift in various senses

lifting (2×)

light, *n.* Light

lighte (1×), lights (5×)

light, *a.* That does not lie heavy on the stomach; easy of digestion

light (2×)

light, *v.* To set burning

light (1×)

lightly, *b.* In a light manner

lightlie (5×)

like, *v.* To like

likes (1×)

like, *a.* Having the same characteristics

or qualities as some other person or thing

lik (1×), like (57×), lyke (12×)

lily, *n.* Lily, any plant (or its flower) of the *genus Lilium* (family *Liliaceæ*)

lilij (1×), lillie (1×), lylles (1×),

lyllie (1×), lyllye (1×)

lime, *n.* The globular fruit of the tree *Citrus Medica*, smaller than the lemon and of a more acid taste

lyme (20×)

line, *n.* The fibre of flax

lin (1×), lyn (3×), lyne (7×)

linen, *a.* Cloth woven from flax

lynen (5×), lynnen (30×)

lining, *n.* The stuff with which garments are lined

lynning (3×)

linnet, *n.* Oxidised lead ores

lynnet (27×), lynett (1×), lynnet (2×)

linseed, *n.* The seed of flax, well known as the source of linseed-oil, and as a medicament

lynese (1×), lynesede (1×)

lint, *n.* The flax-plant

lynt (5×), lynte (1×)

lip, *n.* Lip

lipp (1×), lippes (6×), lipps (2×),

lips (1×), lyppes (1×)

liquor, *n.* Liquid for drinking; beverage, drink

licores (3×), licour (12×), lycores (3×), lycour (10×), lycoure (1×), lykores (1×)

liquorous, *a.* Of the nature of liquor; liquid

liquorous (1×)

lisk, *n.* The loin or flank; also, the groin

liske (1×), liskes (1×)

list, *v.* To desire, like

list (3×)

litharge, *n.* Protoxide of lead prepared by exposing melted lead to a current of air

letarge (1×), litarg (1×), litarge (6×)

little, *a.* Little

least (1×), lesser (4×), litill (2×), litle (32×), littill (1×), lytill (12×), lytle (1×)

little, *b.* To a little or slight extent; in a small degree

litol (1×), litle (3×), little (1×)

little, *n.* A small quantity, piece, portion

litill (16×), litle (42×), littil (1×), littill (1×), little (4×)

live, *v.* To live

live (2×), lived (1×), lyve (2×)

liver, *n.* The liver

liver (1×), lyver (5×)

liverwort, *n.* The lichen-like plant *Marchantia polymorpha*

lyverworthe (1×)

long, *a.* Long

long (17×), longa (1×), longe (9×), longer (8×)

long, *v.* To long

longithe (1×)

long(e) → **lung**

look, *v.* To look

looke (6×)

loose, *a.* Unbound, loose

lows (1×), Lowse (1×)

lose, *v.* To lose

lose (4×), lost (3×)

lovage, *n.* The umbelliferous herb

Levisticum officinale, a native of southern Europe, grown in old gardens, and used as a domestic remedy

Lavache (1×), lavage (1×), lovage (2×)

low, *a.* Low

louermoste (1×), low (2×), lower (6×)

lukewarm, *a.* Moderately warm, tepid

luikewarme (1×), lukewarm (1×)

lump, *n.* A compact mass of no particular shape; a shapeless piece or mass

lumps (1×)

lung, *n.* The lung, each of the two respiratory organs in man and most vertebrate animals

longes (3×), longs (1×)

lungwort, *n.* The boraginaceous plant

Pulmonaria officinalis (Common Lungwort), having leaves with white spots, fancied to resemble the spots in a diseased lung

lannworts (1×)

lust, *n.* Desire, appetite, inclination for something

lust (1×)

lusty, *a.* Full of healthy vigour

lustie (3×)

lycour(e) → **liquor**

lye → **lie**

lyfe → **life**

lying → **lie**

lyke → **like**

lykores → **liquor**

lyll(i)(ye) → **lilly**

lymbeck → **alembic**

lyme → **lime**

lyn(n)et(t) → **linnet**

lynning → **lining**

lyn(e)sede → **linseed**

lynt(e) → **lint**

lyppes → **lip**

lyt(ill)(le) → **little**

lyve → **live**

lyver → **liver**

lyverworthe → **liverwort**

M

mace, *n.* A spice consisting of the dried outer covering of the nutmeg

mace (1×), maces (2×)

madder, *n.* A herbaceous climbing plant, *Rubia tinctorum*, having rough hairy stems and bearing panicles of small yellowish flowers

bale madder (3×), madder (6×)

maidenhair, *n.* The name of certain ferns having fine hair-like stalks and delicate fronds

madenhear (1×), madenheir (1×), madens haire (1×), mayden heare (1×)

make, *v.* To make

made (9×), maid (18×), maide (11×), maik (36×), maike (36×), mak (2×), make (100×), makid (1×), makithe (6×), mayd (2×), mayde (3×)

malady, *n.* Ill health, sickness, disease

malady (1×)

malice, *n.* Bad quality, badness

mallice (1×)

mallow, *n.* A common wild plant, *Malva sylvestris* (family *Malvaceæ*), having hairy stems and leaves and deeply-cleft reddish-purple flowers

mallowes (1×), mallows (2×),

malowe (2×), malows (5×)

malmsey, *n.* A strong sweet wine, originally the product of the neighbourhood of *Monemvasia* in the Morea; also called malvoisie

malmese (1×), malmesey (6×), malves (1×), malvesey (2×), malvesie (1×)

malt, *n.* Barley or other grain prepared for brewing or distilling by steeping

malt (10×)

malves(ey)(ie) → **malmsey**

mallamollie → **melancholy**

Mallancollie → **melancholy**

Malum mortum → **mormal**

man, *n.* A human being (irrespective of sex or age)

man (29×), mann (1×), mans (8×), men (3×)

mandrake, *n.* Any plant of the *genus* *Mandragora*, native to Southern Europe and the East, and characterized by very short stems, thick, fleshy, often forked, roots, and fetid lance-shaped leaves

mandragg (1×)

manner, *n.* The way in which something is done; method of action; mode of procedure

maner (14×), manie (1×), manner (121×), manners (2×)

many, *a.* Many

many (24×), manye (1×)

marble, *n.* Limestone in a crystalline state and capable of taking a polish

marble (1×), marvall (1×),
marvell (1×)

march, *n.* Smallage or wild celery,
Apium graveolens

merche (1×)

margin, *n.* That part of a surface which lies immediately within its boundary

margen (1×)

marigold, *n.* The name of several plants having golden or bright yellow flowers

goldes (1×), marigolde (1×),
marigouldes (1×), marigoulds
(1×), marygold (1×)

mark, *v.* To put a mark upon

marke (2×)

mark, *n.* A mark

mark (1×), marke (1×)

marrow, *n.* The soft vascular fatty substance usually contained in the cavities of bones

marrow (3×)

marsh, *a.* A tract of low lying land, flooded in winter and usually more or less watery throughout the year

morishe (1×)

marvall → **marble**

marvel, *n.* A wonderful or astonishing thing;

marvells (1×), mervaille (1×),
mervall (1×)

Marvel(l) → **marble**

marvellous, *a.* Marvellous

mervalous (2×), marvelous (4×)

mash, *n.* Something reduced to a soft pulpy consistence, by beating or crushing, by mixing with or steeping in water, etc

mashe (1×)

mask, *v.* To infuse

maskid (1×)

mask-fat, *n.* A mashing vat

mask fatt (1×), maskfats (1×)

mastic, *n.* A gum or resin which exudes from the bark of *Pistacia Lentiscus* and some other trees

mastic (3×), mastice (1×),

mastick (7×), mastik (3×),

mastyck (1×), mastyk (2×),

mastyke (1×)

matfellon, *n.* The common name of species of *Centaurea* (family *Compositæ*), a common weed with a hard tough stem, and light purple flowers

matfelon (2×)

matter, *n.* Matter

mater (1×), matter (51×),

matters (1×)

maturative, *a.* That causes maturation or the formation of pus; pertaining to or characterized by maturation

maturatyve (1×)

maw, *n.* The stomach

maw (1×)
may, *n.* The month of May
 may (3×)
may, *v.* May
 mai (1×), maie (35×), maist (3×),
 maiste (1×), may (69×), maye
 (8×)

meadow-sweet, *n.* The rosaceous plant
Spiraea Ulmaria, common in moist
 meadows and along the banks of streams

medewort (1×)

meal, *n.* Meal

meal (2×), meale (5×)

mean, *n.* An intermediary agent or
 instrument

mean (1×)

mean, *a.* Intermediate in time; coming
 between two points of time or two
 events

mean (1×), meane (1×)

measle, *a.* Affected with measles

mesell (1×)

meat, *n.* Meat

meat (22×), meate (8×), meates
 (2×), meats (1×), meets (1×),
 mete (2×), metes (2×), mitts (1×)

meddle, *v.* To mix, mingle; to combine,
 blend

meddle (11×), medle (4×)

medewort → **meadow-sweet**

medicine, *n.* Any substance or
 preparation used in the treatment of

disease

medicine (1×), medcyn (1×),
 medcyne (18×), medcynes (2×),
 medcyns (1×), medicina (1×),
 Medicine (2×), Medicyne (1×),
 medycine (2×)

medratill → **mithridate**

megrim, *n.* Hemicrania; a form of severe
 headache usually confined to one side of
 the head

megrim (2×), megprime (1×),
 Megryme (2×), migrim (1×)

melancholy, *n.* The black bile itself, one
 of the four chief fluids or cardinal
 humours of the ancient and mediæval
 physiologists

malancolie (1×), mallamollie
 (1×), Mallancollie (1×)

melilot, *n.* A plant of the leguminous
genus Melilotus, *M. officinalis* or Yellow
 Melilot, the dried flowers of which were
 formerly much used in making plasters,
 poultices, etc.

milliot (1×)

mellefoyle → **milfoil**

melon, *n.* A name common to several
 kinds of gourds, as the musk melon,
Cucumis Melo, and the water melon,
Citrullus vulgaris

millon (1×)

melt, *v.* To become liquefied by heat
 melt (17×), meltid (1×), molten

(12×), moltid (1×)
member, *n.* A part or organ of the body;
 a limb or other separable portion

member (5×), members (5×),
 membrum (1×)

men → **man**

mend, *v.* To restore to a complete or
 sound condition

mend (3×), mendid (1×)

meng, *v.* To mix, mingle, blend

meng (11×), menge (17×),
 menged (1×), mengid (4×)

mengle → **mingle**

menstrue, *n.* The catamenia

menstrews (1×)

mention, *v.* To make mention of
 mentionid (1×)

merchant, *n.* A merchant

merchants (1×)

merche → **march**

mercury, *n.* Mercury

mercurie (2×)

merge, *v.* To plunge or dip in a liquid

merge (1×), mergid (1×)

merthe → **myrt**

merv(alous)(elous) → **marvelous**

mesh, *v.* To entangle, involve
 inextricably

meshid (1×)

metal, *n.* Any member of the class of
 substances represented by gold, silver,
 copper, iron, lead, and tin

mettell (1×)

mid, *n.* The middle

myd (2×)

mid, *a.* The middle or midst of
 something

myddest (1×)

middle, *a.* Middle

myddle (2×)

midriff, *n.* The diaphragm

mydriff (2×)

mids, *n.* The middle, middle part or
 point

middes (2×), midds (1×), mydds
 (1×)

midwife, *n.* A woman who assists other
 women in childbirth, a female
 accoucheur

middwife (1×)

might, *v.* Might

might (7×), mighte (1×)

mightily, *b.* In a mighty manner, with
 great power or strength

mightelie (1×)

mike, *n.* A crutch or forked support on
 which a boom rests when lowered

mik (1×)

milfoil, *n.* The common yarrow, *Achillea*
Millefolium

mellefoyle (1×)

milk, *n.* Milk

milk (16×), milke (1×), mylk
 (2×), mylke (1×)

mill, *n.* Ground oak-bark for tanning

mylne (1×)

milliot → **melilot**

millon → **melon**

millstone, *n.* One of a pair of circular stones used for grinding corn in a mill

moler stone (4×), moller stone

(1×)

milt, *n.* The spleen in mammals

milt (5×), milte (4×), mylt (3×)

mince, *v.* To cut or chop

mynced (1×)

mind, *n.* Mind

minde (1×), mynde (1×)

mingle, *v.* To mix so that they become physically united

mengle (1×), mingle (1×)

mint, *n.* Any one of the aromatic labiate plants of the genus *Mentha*

mint (1×), mints (1×), mynt (1×),

mynts (1×)

mipking → **napkin**

mir → **myrrh**

miracle, *n.* A miracle

miracle (1×)

mirtills → **myrtle**

misconyng → **misken**

misjoin, *v.* To join or connect wrongly, inappropriately

misioynid (1×)

misken, *v.* Not to know; to be ignorant of

misconyng (1×)

mis-set, *v.* To set in a wrong place, misplace

missetting (1×)

mithridate, *n.* A composition of many ingredients in the form of an electuary, regarded as a universal antidote or preservative against poison and infectious disease

medratill (1×)

mitts → **meat**

mix, *v.* To put together so that the particles or members of each are more or less evenly diffused among those of the rest

mix (1×), mixe (4×), mixid (3×),

mixing (3×), mixt (1×)

moderately, *b.* In a moderate manner, degree, extent

moderatlie (2×)

moist, *a.* Slightly imbued with wetness

moist (1×), moiste (1×)

moistness, *n.* The quality or state of being moist

moystnes (2×)

mol(ayne)(eyn)(eyne) → **mullein**

mol(l)er stone → **millstone**

molt → **melt**

month, *n.* A month

moneth (2×), monethe (2×),

monithes (1×), month (1×),

monthe (2×)

moon, *n.* Moon

monne (1×), moone (3×)

more, *a.* Greater in number, quantity, or amount

moe (2×), moore (10×), moost

(1×), mooste (1×), more (29×)

morel, *n.* A name applied to various plants also known as nightshade; chiefly the Black Nightshade

morell (1×), morrell (1×), petit

morel (1×)

morishe → **marsh**

mormal, *n.* An inflamed sore

malum mortum (1×), Mormall

(9×), mormalles (1×), mormalles

(1×)

morn, *n.* The beginning of the day, dawn, sunrise

morn (4×), morne (14×)

morning, *n.* The early part of the day-time, ending at noon or at the hour of the midday meal

morning (12×), morninge (5×),

mornings (1×)

morphew, *n.* A leprous or scurfy eruption

morfew (3×), morfews (1×)

morrow, *n.* The day next after the present

morow (1×), morrow (1×)

morsel, *n.* A bite; a mouthful

morsell (1×), morsells (1×)

mortar, *n.* A vessel of a hard material having a cup-shaped cavity, in which ingredients used in pharmacy, cookery, etc., are pounded with a pestle

morter (15×)

most, *a.* Most

moist (2×), moiste (1×), most

(5×), moste (7×)

mouse-ear, *n.* A species of hawkweed, *Hieracium Pilosella*

mouse ear (1×), mouseare (1×),

mousyear (1×), mowseare (2×),

mowsyer (2×)

mouth, *n.* The mouth

mouthe (6×), mowth (3×),

mowthe (18×), mowthes (1×)

movable, *a.* Capable of being moved

moveble (1×)

move, *v.* To change the place or position of

move (2×), moving (1×)

much, *a.* Much

much (3×), mucche (103×),

mykell (1×)

mugwort, *n.* The plant *Artemisia vulgaris*, formerly also called motherwort

mugwood (1×), mugwoort (3×),

mugwoorte (3×)

mull, *v.* To grind to powder, pulverise

mull (1×)

mullein, *n.* The common name of various species of the *genus Verbascum*,

N

consisting of herbaceous plants with woolly leaves and an erect woolly raceme of yellow flowers

molayne (1×), moleyn (1×),

molleyne (1×), mullayne (1×)

muscadell, *n.* A strong sweet wine made from the muscat or similar grape

muscadell (1×)

must, *v.* Must

must (32×), muste (2×)

mustard, *n.* The seeds of black and white mustard ground or pounded to a powder

mustard (1×), mustarde (1×),

musterd (4×)

myd(dest) → **mid**

myddle → **middle**

mydriff → **midriff**

mykell → **much**

mylk(e) → **milk**

mylne → **mill**

mylt → **milt**

mynced → **mince**

mynde → **mind**

mynt → **mint**

myrrh, *n.* A gum-resin produced by several species of *Commiphora* (*Balsamodendron*)

mir (2×), myr (1×), myrr (1×)

myrt(le), *n.* The fruit or berry of the myrtle tree

merthe (1×)

nail, *n.* Nail

nayle (1×)

naked, *a.* Naked, unclothed

naked (1×), nakid (2×)

namely, *b.* Particularly, especially, above all

namelie (3×), namelye (2×)

napkin, *n.* A square piece of linen, used at meals to wipe the fingers or lips and to protect one's garments

mipking (1×)

narrow, *a.* Narrow

narow (1×), narrow (2×)

natural, *a.* Natural

naturall (2×)

nature, *n.* Nature

nature (4×)

naughtily, *b.* Badly, poorly

noughtelie (1×), noughtilie (1×)

navel, *n.* The navel

navell (3×), navill (1×)

ne, *b.* Not

ne (1×)

near, *b.* Nearer or closer

neere (1×), nere (5×), neyr (1×)

neck, *n.* Neck

Neck (12×), necke (1×), nekk (2×)

need, *v.* To need

nede (7×), nedith (1×), nedithe (1×)

need, *n.* Necessity

nede (8×), neide (1×)

needle, *n.* A needle

nedle (3×), nedles (2×), neld (5×),

nelde (4×)

neither, *b.* Neither

neither (1×), nether (6×)

neld(e) → **needle**

nese → **sneeze**

nesh, *v.* To make soft

nesherid (1×), nesheringe (1×)

nesh, *a.* Soft in texture or consistency; yielding easily to pressure or force

nesh (1×), neshe (2×)

nesid → **sneeze**

nether → **neither**

nethermost, *a.* Lowest, undermost

nethermost (2×), nethermoste (1×)

nettle, *n.* A plant of the *genus Urtica*, of which the commoner species (*U. dioica*, the Common or Great Nettle, and *U. urens*, the Small Nettle) grow profusely on waste ground, waysides, etc.

nettell (2×), nettle (3×)

neuer → **never**

neuertheles → **nevertheless**

never, *b.* Never

neuer (2×), never (6×)

nevertheless, *b.* Nevertheless

neuertheles (3×), nevertheles (3×)

new, *a.* New

new (26×), new, (1×), newe (2×)

newly, *b.* Very recently or lately

newly (1×)

next, *b.* Next

next (4×)

next, *a.* Next

next (5×)

nigh, *a.* Near

nyghe (1×)

night, *n.* Night

nige (1×), night (13×), nightes (1×), nights (2×)

nightly, *b.* At or by night; during the night

nightlie (1×)

nitreat → **entreat**

no, *b.* Not any

no (36×), noo (2×)

noble, *a.* Illustrious or distinguished by position, character, or exploits

noble (2×)

nobleness, *n.* The state or quality of being noble

noblenes (1×)

noddle, *a.* The back of the head

noddle (2×), nodle (1×)

noise, *n.* Noise

noise (1×)

noisome, *a.* Harmful, injurious, noxious

noysomme (1×)
noli me tangere, *n.* An eroding
 ulceration attacking the face
 noli me tangere (1×)
noosgays → **nosegays**
norishithe → **nourish**
north, *n.* That north
 northe (1×)
nose, *n.* Nose
 nose (14×)
nosegays, *n.* A bunch of flowers or herbs
 (sweet-smelling flowers); a bouquet, a
 posy
 noosgays (1×)
nostril, *n.* Nostril
 nose thirle (2×), nose thirll (2×),
 nose thirlls (3×), nose thrille
 (1×), nose thrills (1×), nosethirlls
 (1×), nosethrills (1×)
not, *b.* Not
 not (142×)
note, *v.* To observe or mark carefully; to
 give heed or attention to
 note (2×)
nothing, *n.* Nothing
 nothing (5×), nothinge (4×)
nought, *n.* Nothing
 nought (3×)
nough(telie)(tilie) → **naughtily**
nourish, *v.* To sustain (a person or living
 organism) with food or proper
 nutriment

norishithe (1×)
now, *b.* Now
 now (5×)
noysomme → **noisome**
number, *n.* Number
 number (1×)
nut, *n.* A fruit which consists of a hard
 or leathery (indehiscent) shell enclosing
 an edible kernel; the kernel itself
 nutt (1×)
nutmeg, *n.* A hard aromatic seed, of
 spheroidal form and about an inch in
 length, obtained from the fruit of an
 evergreen tree (*Myristica fragrans* or
officinalis)
 nutmiggs (1×), nutmugge (1×),
 nutmuggs (1×)
nyghe → **nigh**

O

oak, *n.* The oak, the well-known British
 and European forest tree
 oke (3×)
oak-fern, *n.* Various applied by the
 early herbalists to the Common
 Polypody (which grows on the trunks of
 trees)
 okefern (1×)
oak-tree, *n.* Oak-tree
 oke tree (1×)

oat, *n.* The grains of a hardy cereal forming an important article of food in many countries for men

oots (1×), oten (3×)

occasion, *n.* A falling together or juncture of circumstances favourable or suitable to an end or purpose

ocasion (1×)

occupy, *v.* To take possession of (a place) by settling in it

occupie (1×)

oder → **other**

off, *b.* Off

of (25×), off (6×)

office, *n.* A bodily or mental function as operating; the proper action of an organ or faculty

office (1×)

often, *b.* Often

oft (9×), ofte (3×), often (9×)

oftentimes, *b.* Often

oftentymes (1×), oftimes (2×)

oke → **oak**

okefern → **okefern**

oke tree → **oak-tree**

oil, *n.* Oil

oil (2×), oile (13×), oyl (1×), oyle (43×)

oil-de-bay, *n.* Oil of bay

oile de bay (1×), oyle de baie (1×), oyle de bay (1×), oyle de baye (2×)

ointment, *n.* An unguent

ointement (2×), ointmen (1×), ointment (10×), ointmment (1×), oyntment (25×), oyntments (2×)

old, *a.* Old

old (3×), olde (7×), olld (1×), oold (1×), ould (17×), ould (4×)

olibanum, *n.* An aromatic gum resin obtained from trees of the genus *Boswellia*

olibannum (1×), Olibanum (15×)

olive-oil, *n.* The oil obtained from the pulp of olives

oile olive (1×), oyle oliff (1×), oyle olive (1×), oyle olyve (1×)

once, *b.* Once

once (4×), ones (7×)

onion, *n.* An onion

onyon (8×), onyons (4×), ynyons (1×)

only, *b.* Only

oneli (2×), onely (2×), onelye (2×), onlie (2×), onlye (1×)

oots → **oat**

open, *v.* To open

open (21×), opene (1×), opened (1×)

openly, *b.* Openly

openly (1×)

oppress, *v.* To press injuriously upon or against

oppressid (1×)
ordain, *v.* To put in order, arrange,
 make ready, prepare
 ordained (1×)
order, *v.* To give order or arrangement
 to; to put in order
 ordering (1×), ordred (1×)
origan, *n.* A plant of the *genus*
Origanum, as Wild Marjoram
 origane (1×), orygane (1×)
orpiment, *n.* A bright yellow mineral
 substance, the trisulphide of arsenic,
 also called Yellow Arsenic, found native
 in soft
 orpiment (2×), orpyment (1×),
 orpyne (1×)
orygane → **origan**
oten → **oat**
other, *a.* Other
 oder (1×), other (134×)
otherwise, *b.* Otherwise
 ortherwise (1×), otherwise (7×)
ouermuche → **overmuch**
ouerthwart(e) → **overthwart**
ough(t)(te) → **owe**
ould(e) → **old**
ounce, *n.* A unit of weight; originally
 the twelfth of a pound
 ounce (11×), ounces (13×),
 ownce (3×), owncs (1×), vnce
 (53×), vnces (44×), vncs (1×),
 vnguce (1×), vnnce (1×)

oune → **own**
out, *b.* Out
 out (38×), oute (21×), owt (15×),
 owte (4×), owter (1×)
outward, *b.* Outward
 outward (3×), outwards (1×),
 owtwarde (1×)
outwardly, *b.* On the outside or outer
 surface; externally
 outwardlie (1×), owtwardly (1×)
oven, *n.* A chamber or receptacle of
 brick, stonework, or iron, for baking
 bread and cooking food
 oven (2×)
overmuch, *b.* Too great in amount;
 excessive
 ouermuche (1×)
overthwart, *b.* Over from side to side, or
 so as to cross something
 ouerthwart (2×), ouerthwarte
 (1×)
owe, *v.* Ought
 ough (1×), ought (22×), oughte
 (2×)
own, *a.* Own
 oune (1×), owne (2×)
ox, *n.* Ox
 ox (1×), oxe (4×), oxen (1×)
oyl(e) → **oil**
oyntment → **ointment**
oyster, *n.* Oister
 oyster (1×)

P

pacient → **patient**

pain, *n.* Pain

pain (7×), paine (2×), payne (1×)

pain, *v.* To inflict pain upon, cause to suffer; to hurt

pained (1×)

painful, *a.* Full of or causing pain or suffering

painfull (2×)

pair, *n.* Pair

pair (2×), paire (3×), paires (1×),

pare (2×), payer (1×)

paisture → **pasture**

palate, *n.* The roof of the mouth

palace (2×)

palm, *n.* The part of the hand between the wrist and the fingers

palme (1×), palmes (1×), palms (1×)

palsy, *n.* A disease of the nervous system, characterised by impairment or suspension of muscular action or sensation

palsey (1×), palseys (1×)

pan, *n.* A vessel, of metal or earthenware, for domestic uses, usually broad and shallow; the skull, especially its upper part

pan (30×), pane (8×), pann (2×),

panne (2×)

pant, *v.* To breathe hard or spasmodically

pantith (1×)

pap, *n.* A teat or nipple

pap (3×), papp (3×), pappe (2×),

pappes (2×)

papie → **poppy**

parcelie → **parsley**

pare, *v.* To trim by cutting off projecting, irregular, or superficial parts; to cut close to the edge so as to make even or neat

pare (2×), pared (1×), parid (1×),

paring (1×)

paritorie → **pellitory**

parrosen → **pitch-resin**

parsley, *n.* A biennial umbelliferous plant (*Petroselinum sativum*, sometimes classed as *Apium* or *Carum Petroselinum*), a native of the Mediterranean region

parcelie (1×), parselie (3×),

parsilie (1×), percelie (1×),

percellie (1×)

parsons → **person**

part, *v.* To divide into parts

parted (1×), partid (1×), pertid (1×)

part, *n.* Part

part (3×), parte (30×), partes

(5×), partie (2×), parties (1×),

parts (5×), perte (2×)
partly, *b.* With respect to a part; in part;
 not wholly

partlie (1×)

pass, *v.* To pass

paise (1×), pas (2×), pases (1×),
 passe (1×), passid (2×), passing
 (3×), passage (1×), past (2×)

paste, *n.* Paste

paste (1×)

paste, *v.* To paste

pasted (1×)

pasture, *n.* The growing grass or
 herbage eaten by cattle

paisture (1×), pasture (1×)

patient, *n.* Patient

pacient (2×), patient (108×),
 patiente (1×)

pea, *n.* The round seed of *Pisum sativum*

pease (2×)

pearl, *n.* A thin white film or opacity
 growing over the eye; a kind of cataract

perle (1×)

pe(e)ce → **piece**

peck, *n.* A measure of capacity used for
 dry goods; the fourth part of a bushel,
 or two gallons

peck (1×), pek (1×), pekk (1×)

peel, *v.* To strip of its natural
 integument or outer layer, as an orange,
 potato, or the like of its skin or rind

pill (2×)

pegle → **pigle**

pellamountain, *n.* A name of wild
 thyme

pelymointaine (1×), puliole (1×),

puliole mountain (1×)

pellet, *n.* A pellicle, a thin or fine skin
 or membrane

pellet (2×)

pellitory, *n.* A composite plant,
Anacyclus Pyrethrum, called distinctively
 pellitory of Spain

paritorie (3×), pelleter (1×),

pelletts (1×), pelliter (1×),

pellytour (1×), peritorie (2×)

pen, *n.* A feather of a bird, a plume

pen (6×), pens (1×)

pence, *n.* A collective plural of penny

pence (1×)

penetrate, *v.* To penetrate

penetrate (1×)

penny, *n.* An English coin of the value
 of 1/12 of a shilling

penny (1×), pennyes (1×)

pennywaight, *n.* A measure of weight,
 equal to 24 grains,

penie weight (1×), penny weight
 (1×), pennywaight (9×),

pennywights (8×), peny weight
 (3×), penye weight (2×)

pennywort, *n.* A common plant in the
 west of England and in Wales, having
 peltate leaves of a rounded concave

form, and growing in the crevices of rocks and walls; Navelwort

pennywoort (1×), penywoort (1×)

pennyworth, *n.* The amount of anything which is or may be bought for a penny; as much as is worth a penny

penie woorth (2×), peniwoorth (1×), peniwoorth (2×), penniwoorth (1×), penny woorth (1×), pennywoorth (2×), pennyworthe (1×), penyworth (1×), penyworthe (1×)

pepper, *n.* Pepper

pepper (13×)

peradventure, *n.* By chance, by accident

peraventure (1×)

perceive, *v.* To take in or apprehend with the mind or senses

perceave (2×), perceve (1×), perceyve (3×), perceyved (1×), perceyvest (1×), perceyvyd (1×), persiue (1×)

perce(d) → **pierce**

percel(l)ie → **parsley**

perchance, *b.* By chance

perchaunce (1×)

perfect, *a.* Perfect

perffit (1×), perfit (2×), perfite (2×), perfyt (1×)

perfectly, *b.* Perfectly

perfectlie (2×), perfitlie (1×)

perfume, *n.* The odorous fumes or vapour given off by the burning of any substance

perfume (1×)

perilous, *a.* Fraught with peril; causing or occasioning great danger

perilous (1×), perlous (1×)

peritorie → **pellitory**

perle → **pearl**

perrosen → **pitch-resin**

persid → **pierce**

person, *n.* A person

parsons (1×), persone (1×), persons (1×)

pertid → **part**

pestilence, *n.* Any fatal epidemic disease, affecting man or beast, and destroying many victims

pestilein (1×), pestilenc (5×), pestilence (10×)

pestle, *n.* An instrument for bruising or pounding substances in a mortar

pestell (1×)

phisici(an)(ons) → **physician**

phisick → **physic**

phlegm, *n.* The thick viscid fluid or semifluid substance secreted by the mucous membranes

fleme (1×), flewm (1×), flewme (5×)

philm → **film**

physic, *n.* The knowledge of the human body; medical science, medicine

phisick (2×)

physician, *n.* One who practises the healing art, including medicine and surgery

phisician (1×), phisicians (1×)

pia mater, *n.* A delicate fibrous and very vascular membrane which forms the innermost of the three meninges enveloping the brain and spinal cord

pia matter (2×)

pick, *v.* To pierce, penetrate, indent, dig into, or break the surface of (anything) by striking it with something sharp or pointed

pycked (1×), pyke (2×), pyked (2×)

piece, *n.* A part, bit, or fragment of anything

pece (18×), peces (2×), pecs (1×), peece (3×)

pierce, *v.* To penetrate, or run through or into

perce (1×), perced (3×), persid (1×)

pig, *n.* The young of swine

pigg (1×)

pigle, *n.* The Stitchwort, *Stellaria Holostea*

pegle (3×), pigle (1×)

pill, *n.* A small ball or globular mass of

medicinal substance, made up of a size convenient to be swallowed whole

pills (1×)

pill → **peel**

pillow, *n.* A support for the head in sleeping or reclining

pillows (1×)

pimpernel, *n.* The common name of *Anagallis arvensis* (family *Primulaceæ*), a small decumbent annual found in cornfields and waste ground

pimpernell (4×), pympernell (2×)

pimple, *n.* A small solid rounded tumour of the skin, usually inflammatory, without, or rarely with, suppuration

pimples (2×), pyples (3×)

pin, *n.* A small piece of wood, metal, or other solid substance, of cylindrical or similar shape, often tapering or pointed, used for some one of various purposes, as to fasten or hold together parts of a structure

pynnes (1×), pynus (1×)

pine, *n.* A tree of the *genus Pinus*, or of various allied coniferous genera

pyne (3×)

pinson, *n.* Pincers, forceps

pinsonnes (1×), pynsons (1×)

pint, *n.* A measure of capacity for liquids (also for corn and other dry substances of powdery or granular nature), equal to

half a quart or 1/8 of a gallon; A pint
pint (3×), pinte (10×), pints (3×),
pynt (6×), pynte (15×), pynts (1×)

pintle, *n.* The penis
pintill (4×)

pipe, *n.* A large cask, of more or less
definite capacity

pipe (7×), pipes (1×), pype (1×)

piss, *v.* To urinate, make water
pisse (2×), pissed (1×), pisseth
(1×), pissing (1×)

piss, *n.* Urine
pys (1×)

pit, *n.* A hole or cavity
pitt (2×)

pitch, *n.* A tenacious resinous substance,
of a black or dark brown colour
becoming a thick viscid semi-liquid
when heated

piche (3×), pitche (4×)

pitch-resin, *n.* The resin or turpentine
which exudes from the pitch tree

parrosen (1×), perrosen (1×)

pith, *n.* The central column of spongy
cellular tissue in the stems and branches
of dicotyledonous plants

pith (1×), pithe (3×), pythe (1×)

place, *n.* Place
place (58×), places (5×), plac
(16×), plaice (2×)

plague, *n.* A blow, a stroke; a wound
plage (1×)

plain, *a.* Flat, level, even; free from
elevations and depressions

playne (1×)

plainly, *b.* In a clear or distinct manner
plainly (1×)

plantain, *n.* A plant of the *genus*
Plantago, as the Greater Plantain (*P.*
major), a low herb with broad flat leaves
spread out close to the ground, and close
spikes of inconspicuous flowers,
followed by dense cylindrical spikes of
seeds.

plaintaine (1×), plantain (1×),
plantane (1×), planteyn (1×),
plaunteyn (1×), playntain (2×),
playntane (1×)

plaster, *n.* An external curative
application, consisting of a solid or
semi-solid substance spread upon a piece
of muslin, skin, or some similar material

plaister (76×), plaisters (1×),
plaistre (1×), plaster (6×),
plasters (1×), playster (2×)

plate, *n.* Plate
plaite (1×), plate (1×)

pleasant, *a.* Pleasant
pleasant (2×)

pleasure, *n.* Pleasure
pleasour (1×), pleasure (1×)

plome → **plum**

plum, *v.* To swell up
plome (1×)

pock, *n.* A pustule or spot of eruption in any eruptive disease

pocks (1×)

pocket, *n.* A bag or sack

pocket (2×), pockit (2×), poket

(1×), pokket (1×)

point, *n.* A minute hole or impression made by pricking

point (1×), poynt (1×)

poisonous, *a.* Venomous

poyson (1×)

polypody, *n.* A fern of the *genus Polypodium*

polipodin (1×), polipodium (1×)

polypus, *n.* A general term for tumours of various kinds, arising from a mucous or serous surface

polip (1×), polipus (4×)

pomegranate, *n.* The fruit of the tree *Punica Granatum*, family *Myrtaceæ*, a large roundish many-celled berry, with many seeds, each enveloped in a pleasantly acid juicy reddish pulp

pomegarnet (1×), pomgarnet (1×)

poor, *a.* Poor

poore (1×)

poplar, *n.* A tree of the *genus Populus*, comprising large trees of rapid growth, natives of temperate regions

popler (1×), populer (2×)

poppy, *n.* A plant (or flower) of the

genus *Papaver*, comprising herbs of temperate and subtropical regions, having milky juice with narcotic properties

papie (1×), poppy (1×)

populeon, *n.* An ointment made of the buds of the Black Poplar

popeleon (1×), popilion (2×)

pork, *n.* A swine, a hog, a pig

pork (1×)

portion, *n.* A part or share

porcion (2×), porcions (1×)

posset, *n.* A drink composed of hot milk curdled with ale, wine, or other liquor, often with sugar, spices, or other ingredients

posset (7×), possett (1×), possit (1×)

possibility, *n.* The state, condition, or fact of being possible

possibilitie (1×)

possible, *a.* Possible

possible (2×)

pot, *n.* A vessel of cylindrical or other rounded form, and rather deep than broad, commonly made of earthenware or metal (less commonly glass), used to hold various substances, liquid or solid, for domestic or other purposes.

pot (6×), pott (14×)

potica(ire)(rie) → **apothecary**

pottage, *n.* A dish composed of

vegetables alone, or along with meat,
boiled to softness in water, and
appropriately seasoned

potage (3×)

pottle, *n.* A measure of capacity for
liquids equal to two quarts or half a
gallon: now abolished.

pottel (1×), pottell (11×), pottle
(1×)

poumishe → **pumice**

pound, *n.* A measure of weight and mass
derived from the ancient Roman libra,
but very variously modified in the course
of ages in different countries, and as
used for different classes of things

pound (40×), pounce (2×),
pounds (15×), pownd (4×),
pownde (2×)

pour, *v.* To emit in a stream; to flow out
of a vessel or receptacle

powr (1×), powre (9×)

powder, *v.* To sprinkle (food) with a
condiment of powdery nature; to
season, spice

powderid (2×), powdred (2×),
power (1×)

powder, *n.* Any solid matter in a state of
minute subdivision

powder (1×), powder (8×),
powder (148×), powders (2×)

practice, *n.* The action of doing
something; performance

practise (4×), prasicthe (1×)

practise, *v.* To perform, do, act

practisid (1×), practized (1×)

praise, *n.* The action or fact of praising;
the expression in speech of estimation

praise (1×)

praise, *v.* To value, appraise

prasid (1×)

precede, *v.* To go before, precede

preceden (2×)

precious, *a.* Of great price; having a high
value

precious (7×), precieuse (8×),
pretious (4×), pretiouse (2×)

preservative, *n.* A medicine that
preserves health, protecting from or
preventing disease

preservatyve (1×)

press, *v.* To act upon (a body) with a
continuous force directed towards or
against it

presse (3×), pressed (1×),
pressinge (1×)

pretty, *a.* Pretty

pretie (2×)

previd → **prove**

prick, *v.* To pierce slightly, make a
minute hole with a fine or sharp point

prickid (1×), pricking (1×),
priking (3×)

prick, *n.* A puncture

prick (1×)

prickle, *v.* To affect with a prickling sensation

prikelethe (1×)

primrose, *n.* A well-known plant, bearing pale yellowish flowers in early spring, growing wild in woods and hedges and on banks

prymrose (1×), prymrose (2×)

principal, *a.* First or highest in rank or importance

principall (1×)

principally, *b.* In the chief place

principaly (1×)

print, *v.* To impress or stamp with a seal, die, or the like

print (1×)

privity, *n.* The private parts

privyte (1×), pryvitie (1×)

privy, *a.* That is of one's own private circle or companionship

pryvie (1×), pryvy (1×)

proche, *v.* To prick, pierce, spur

proche (1×)

profit, *n.* Profit, advantage

profitt (1×)

profit, *v.* To be of advantage, use, or benefit to; to do good to; to benefit

proffitt (1×), profithe (1×)

prolong, *v.* To lengthen out in time; to extend in duration; to cause to continue or last longer

prolonging (1×)

prong, *v.* To pierce or stab with a prong; to fork

spronge (1×)

proper, *a.* Own; owned as property

proper (4×)

proportion, *v.* To adjust in proper proportion to something else, as to size, quantity, number, etc.

proportion (1×), proportioned (1×)

proud, *a.* Proud

prowd (1×), prowde (2×)

prove, *v.* To prove

previd (2×), prove (2×), proved (3×), provid (9×)

prownes → **prune**

prune, *n.* The fruit of the plum-tree

prownes (1×)

prym(e)rose → **primrose**

pryv(ie)(y) → **privy**

pryvitie → **privity**

puliol royal, *n.* Pennyroyal

pulial royall (1×), puliall roiall (1×)

puliole (mountain) → **pellamountain**

pull, *v.* To pull

pull (8×)

pulse, *n.* The place where the pulse occurs or is felt

pulses (1×)

pumice, *n.* As a material used for smoothing or polishing

poumishe (1×)
pure, *a.* Not mixed with anything else;
 free from admixture or adulteration;
 unmixed

pure (3×)
purgation, *n.* The clearing away of
 impurities

purgacione (2×), purgacions
 (1×), purgation (1×)

purge, *v.* To make physically pure or
 clean; to cleanse

pourge (1×), purg (2×), purge
 (10×)

purple, *n.* A purple or livid spot, botch,
 or pustule

purples (2×)
purple, *a.* Purple
 purple (1×)

purpose, *n.* Purpose
 purpose (1×)

purse, *n.* A purse
 purse (1×)

purslane, *n.* A low succulent herb,
Portulaca oleracea, widely distributed
 throughout tropical and warmer
 temperate regions, used in salads, and
 sometimes as a pot-herb, or for pickling

purselein (1×), purselyne (1×)
pustule, *n.* A small conical or rounded
 elevation of the cuticle; a pimple; a
 blister

pustules (1×)

put, *v.* To put
 iput (1×), put (280×), putes (1×),
 putt (4×), putte (2×), putten
 (1×), putting (4×), puttinge (2×),
 puttithe (1×), putto (1×)

py(c)ke → **pick**

pympernell → **pimpernell**

pymples → **pimple**

pyn(n)e → **pine**

pynsons → **pinson**

pynt(e) → **pint**

pynus → **pin**

pype → **pipe**

pys → **pis**

pythe → **pith**

Q

qnar(r)ell → **knar**

quantity, *n.* Size, magnitude,
 dimensions.

quantite (5×), Quantitie (40×),
 quantity (5×), quanty (3×),
 quntite (1×)

quart, *n.* An English measure of
 capacity, one-fourth of a gallon, or two
 pints

quart (3×), quarte (13×), quarts
 (3×)

quartan, *a.* Characterised by the
 occurrence of a paroxysm every fourth

day

quartan (1×), quartane (1×)

quarter, *n.* One of four equal or corresponding parts into which anything is or may be divided

quarten (1×), quarter (30×),

quarterone (1×), quarters (3×),

quartron (2×), quatrone (1×)

quench, *v.* To put out, extinguish

quenche (2×)

quick, *a.* Quick

quick (2×)

quick, *b.* Quickly

quick (1×)

quicken, *v.* To make (liquor or medicine) more sharp or stimulant

Quiken (2×)

quicklime, *n.* Lime which has been burned and not yet slaked with water

quick lyme (2×)

quickly, *b.* Quickly

quickly (1×), quicklye (1×)

quicksilver, *n.* The metal mercury

quick silver (6×), quick sylver

(2×), quicksilver (3×)

quince, *n.* The hard, acid, yellowish, pear-shaped fruit of a small tree (*Pyrus Cydonia*) belonging to the pear-family, used in cookery as a preserve or to flavour dishes of other fruits

quinches (1×)

quint foyle → **cinquefoil**

quishions → **cushion**

quotidian, *a.* An intermittent fever or ague, recurring every day

quotidian (1×)

R

race, *n.* A root (of ginger)

race (1×), rases (1×)

radish, *n.* The fleshy, slightly pungent, root of a widely cultivated cruciferous plant (*Raphanus sativus*)

Radishe (4×), Radishes (1×)

rain, *n.* Rain

raine (1×)

rain, *v.* To rain

raynethe (1×)

raines → **reins**

raise, *v.* To set upright; to make to stand up

Raise (1×), raised (1×), Rasinge (1×), reise (1×)

rane → **run**

rankle, *v.* To fester to a degree that causes pain

Rankelid (1×), Rankelithe (1×)

rasing, *n.* Shavings, scrapings

rasinge (1×)

raspis, *n.* A kind of wine used in the fifteenth and sixteenth centuries

raspise (1×)

rat, *n.* A rat

ratts (1×)

rate, *n.* Ratio, proportion

Retes (1×)

rather, *b.* Rather

rather (1×)

ratton, *n.* A rat

Ratons (1×)

raw, *a.* Uncooked, raw

raw (1×), Rawe (1×)

razor, *n.* A razor, a sharp-edged instrument used for shaving the beard or hair

Rasour (3×), rasure (5×)

reach, *v.* To reach

reache (2×), reche (2×), reched (2×), reching (1×), rechythe (1×)

reader, *n.* One who reads or peruses

reder (1×)

ready, *a.* Ready

redie (2×), redye (2×)

receipt, *n.* A formula or prescription, a statement of the ingredients necessary for the making of some preparation

reecat (2×), receit (1×), receyt (2×)

receive, *v.* To receive

receave (1×), receaving (1×), receyve (1×)

rech(e) → **reach**

recipe, *n.* A formula for a medical prescription; a prescription, or the

remedy prepared in accordance with this

Recipe (1×)

recipient, *n.* Recipient

receipient (1×)

recluse, *n.* A person shut up from the world for the purpose of religious meditation

recluse (1×)

recover, *v.* To recover

recover (1×)

red, *a.* Red

read (17×), reade (6×), red (9×), reddes (1×), rede (11×), reed (7×)

reddish, *a.* Somewhat red, red-tinted

redishe (1×)

reder → **reader**

re(die)(dye) → **ready**

redness, *n.* The state or quality of being red

readnes (2×)

regard, *n.* Regard

regard (1×)

rehearse, *v.* To repeat, say over again

rehearsid (1×), rehersid (1×)

reins, *n.* The kidneys

raines (1×), Reignes (1×), Reynes (1×), Reynolds (1×)

reise → **raise**

relent, *v.* To melt under the influence of heat; to dissolve into water

relent (1×)

relieve, *v.* To relieve

Releve (1×)
remain, *v.* To remain
 remain (2×), remaine (2×),
 remanithe (1×), remanynge (1×),
 remayn (1×)
remedy, *n.* A cure for a disease or other
 disorder of body or mind
 remedie (4×), remedy (1×),
 remedye (1×)
remedy, *v.* To heal, cure
 remedie (2×)
remove, *v.* To remove
 remove (4×), removing (1×)
renew, *v.* To make new, or as new, again
 renew (2×)
renewing, *n.* The action of renewing
 renewing (1×)
require, *v.* To require
 require (1×), requirithe (2×)
resolve, *v.* To melt, dissolve
 resolvid (1×)
rest, *n.* That which remains over; a
 remainder or remnant
 rest (2×)
rest, *v.* To rest
 rest (15×), restithe (1×)
restorative, *n.* A food, cordial, or
 medicine, which has the effect of
 restoring health or strength
 Restorityve (1×)
restore, *v.* To bring back to the original
 state; to improve, repair

restore (1×), restored (2×),
 restorid (2×), restoring (1×),
 restoringe (1×)
restrain, *v.* To check, hold back, or
 prevent
 Restraynthe (1×), Restrein (1×)
restrictive, *a.* Having astringent or
 binding properties; of an astringent
 nature
 restrictive (1×), restrictyve (2×)
Retes → **rat**
rhubarb, *n.* The medicinal rootstock of
 one or more species of *Rheum*
 Rubarb (1×)
rib, *n.* Rib
 ribb (1×), ribbe (2×)
ribwort, *n.* The Narrow-leaved Plantain
 (*Plantago lanceolata*); ribgrass
 ribwoort (2×), ribwoorte (1×),
 rybgras (1×)
riddle, *n.* A coarse-meshed sieve, used
 for separating chaff from corn, sand
 from gravel, ashes from cinders, etc.
 riddell (1×)
Rie → **rye**
rig, *n.* The back, in man or animals
 rigg (1×)
right, *a.* Right as opposed to left;
 correct, proper
 right (9×), RYGHT (2×)
rind, *n.* The bark of a tree or plant;
 sometimes, inner as contrasted with

outer bark

rynde (6×), ryne (2×)

ringworm, *n.* A skin-disease usually manifesting itself in circular patches, and frequently affecting the scalp in childhood; tinea

RINGE WORME (1×),

ringwoormes (2×)

ripe, *a.* Ready for reaping or gathering; arrived at the stage in which they are most fit for eating

rype (2×)

ripe, *v.* To grow or become ripe

ripe (12×), Ripen (1×), riping

(1×), ripp (1×), rype (1×), rypid

(1×), rypinge (1×), rypyd (1×)

riping, *n.* Ripening

riping (2×), Ripinge (1×)

rise, *v.* To get up from sitting, lying, or repose

rise (1×), rising (1×), risinge (2×),

risithe (1×), roose (1×)

rishe → **rush**

roast, *v.* To roast

Roost (1×), rooste (1×), rost (1×),

roste (2×), rosted (2×), rostid

(2×)

rodwood, *n.* One of several West Indian trees or shrubs belonging to the genera *Latia*, *Eugenia*, and *Calypttranthes*

Rudwoort (1×)

roll, *v.* To form into a mass by turning

over and over; to pile up in this manner

Role (1×), roll (3×), roule (1×),

rowle (2×)

roll, *n.* A roll

role (2×), rolles (1×), rolls (2×),

Roole (1×), Rooles (1×), Rools

(1×)

root, *n.* The root of a plant

root (3×), roote (13×), rootes

(25×), roots (17×), roottes (1×),

Rote (4×), rotes (3×), rots (2×),

ruts (1×)

root, *v.* To fix or firmly attach by the root or roots

rooted (1×)

roose → **rise**

rope, *n.* A length of strong and stout line or cordage

rope (1×)

rope, *v.* To tie, bind, fasten, or secure with a rope

Rope (1×)

rose, *n.* A well-known beautiful and fragrant flower which grows upon a shrub of the *genus Rosa*

Roos (1×), Ros (2×), Rose (2×),

roses (14×)

rose-campion, *n.* A pretty garden-plant of the *genus Lychnis* or *Agrostemma*, having rose-coloured flowers

rosecampie (1×)

rose-leaf, *n.* The leaf of a rose; usually,

a rose-petal

rose leaves (1×), rose leves (1×)

rosemary, *n.* An evergreen shrub (*Rosmarinus officinalis*), native to the south of Europe, the leaves of which have an agreeable fragrance, and have been much used in perfumery, and to some extent in medicine

rose marie (2×), Rose merie (1×),

rosemarie (4×), Rosemary (1×)

rosen, *a.* Formed or consisting of roses; pertaining to roses

rosen (4×), Rosyn (4×)

roset, *n.* Rosin, resin

rosett (3×)

rose-water, *n.* Water distilled from roses, or impregnated with essence of roses, and used as a perfume, etc.

roose water (1×), rose water (5×),

rose watter (2×)

rot, *v.* To undergo natural decomposition; to decay, putrefy

Roten (1×), Roting (1×), rott

(1×), ROTTE (1×), Rotten (3×),

rotting (1×), rotythe (1×)

rouge, *n.* A fine red powder prepared from safflower

roug (2×), Rouges (1×), ruug

(2×)

rough, *a.* Having a surface diversified with small projections, points, bristles, etc., so as to be harsh or disagreeable to

the touch

roughe (1×)

round, *a.* Spherical; resembling a ball
round (2×), rounde (2×), rownd (1×), rownde (1×)

round, *b.* In a ring or circle

round (3×), rounde (2×), rownd (2×)

rove, *v.* To form (slivers of wool or cotton) into roves or rovings

Roue (1×)

royal, *a.* Magnificent, splendid

royall (1×)

rub, *v.* To rub

rub (3×), rubb (3×), rubbing (3×)

Rubarb → **rhubarb**

rue, *n.* A perennial evergreen shrub of the genus *Ruta* (*Ruta graveolens*), having bitter, strong-scented leaves which were formerly much used for medicinal purposes

Reu (2×), Rew (21×)

rule, *n.* A principle, regulation, or maxim

rule (2×)

run, *v.* To run

rane (3×), run (3×), rune (12×)

running, *a.* Flowing

runing (5×), runinge (3×), runne

(1×), running (3×), runninge

(1×), Runnyng (1×), Runyng

(1×)

rush, *v.* To tie up, work or make, with rushes

rishe (1x)

rust, *n.* A coating or stain resembling rust

rust (1x)

rusty, *a.* Covered or affected with rust or red oxide of iron; rusted

ruts → **root**

Rustie (1x), rusty (1x)

ruug → **rouge**

rybgras → **ribwort**

rye, *n.* A food-grain obtained from the plant *Secale cereale*, extensively used in northern Europe

Rie (3x), rye (2x)

Ryght → **right**

ryn(de)(e) → **rind**

ryp(e) → **ripe**

S

sack, *n.* A general name for a class of white wines formerly imported from Spain and the Canaries

sack (2x), seck (1x)

sad, *a.* Steadfast, firm, constant

sad (2x)

safe, *a.* In sound health, well, whole

Save (2x)

saffron, *n.* An orange-red product

consisting of the dried stigmas of *Crocus sativus*, used chiefly for colouring confectionery, liquors, etc., and for flavouring; formerly extensively used in medicine as a cordial and sudorific

Saffron (1x), safron (2x), safrone (1x), saphron (1x)

sagapenum, *n.* A gum-resin, the concrete juice of *Ferula persica*, formerly used as an antispasmodic and emmenagogue, or externally

sarapine (1x), Serapine (2x)

sage, *n.* A plant of the genus *Salvia*, an aromatic culinary herb

sage (12x), Saven (1x), Savge (4x), Sawge (7x), sege (2x)

sal ammoniac, *n.* Salt of Ammon, a hard white opaque crystalline salt

sal armoniack (1x), sal armoniak (1x)

salad, *n.* A cold dish of herbs or vegetables

salades (1x)

salat-oil, *n.* Olive oil of superior quality, such as is used in dressing salads

Salat oyle (1x)

salpetre, *n.* Potassium nitrate

sal peter (2x)

salt, *n.* Salt

salt (11x), salte (2x)

salve, *n.* A healing ointment for application to wounds or sores

salve (16×), salves (2×), selven (1×)

same, *a.* Same

same (64×), sayme (2×)

sanative, *a.* Having the power to heal; conducive to or promoting health; curative, healin

sanatif (1×)

sand, *n.* Sand

sand (1×)

sanicle, *n.* The umbelliferous plant *Sanicula europæa* (more fully wood sanicle)

sanicle (3×)

sarapine → **sagapenum**

saucefleme, *n.* A swelling of the face accompanied by inflammation, supposed to be due to salt humours

sawce fleme (1×), Sawce flewin (1×), Sawce flewme (1×), Sawcefleame (1×), Sawcefleme (1×)

saucer, *n.* A receptacle for holding the condiments at a meal

saucer (1×), sawcer (3×)

Saunders → **alexanders**

save, *v.* To rescue or protect

save (1×), savid (2×), Saving (4×), savinge (2×)

Saven → **sage**

savin, *n.* A small bushy evergreen shrub, *Juniperus sabina*, a native of Europe and

Western Asia, with spreading branches completely covered with short imbricating leaves, and bearing a small, round, bluish-purple berry

Savyne (1×)

Savge → **sage**

savour, *n.* Quality in relation to the sense of taste; a specific mode of this quality, as sweetness, bitterness, etc.

savor (1×), savour (2×)

saxifrage, *n.* Any plant of the *genus Saxifraga*, as *S. granulata* (White Meadow Saxifrage)

saxifrage (5×)

say, *v.* To say

said (75×), saide (13×), saie (5×), saith (1×), saithe (1×), say (6×), sayd (2×), sayde (6×), seide (1×)

scab, *n.* Disease of the skin in which pustules or scales are formed

scabb (1×), SCABBE (1×), Scabbes (2×), scabe (1×), scubb (1×)

scabble, *v.* To scabble

scubbe (1×)

scabious, *n.* Any of the herbaceous plants of the *genus Scabiosa*, formerly believed to be efficacious for the cure of certain skin-diseases

scabies (2×), scabions (2×), scabious (3×)

scald, *a.* Affected with the scall; scabby

scalde (1×)
scald, *v.* To affect painfully and injure
 with very hot liquid or steam

skald (1×), skalded (1×), skaldar
 (1×), skalding (2×), skaldith (1×)

scaldar, *v.* To scald, scorch

scaldar (1×), scaldid (1×),
 scaldinge (1×)

scall, *n.* A scaly or scabby disease of the
 skin

Scalles (1×), Skall (3×), skalle
 (2×), Skalles (6×)

scalp, *n.* The top or crown of the head;
 the skull, cranium

scalpp (1×)

scammony, *n.* A gum-resin obtained
 from the tuberous roots of *Convolvulus*
Scammonia used in medicine as a strong
 purgative

Scammony (1×), Scamonye (1×)

scantly, *b.* Scarcely, hardly, barely

skantlie (1×), skantlye (1×)

scape → **escape**

scarce, *v.* To become less, diminish

skarce (1×)

scarth, *n.* A fragment, sherd

Scarthe (2×), skarthe (2×)

scatter, *v.* To dissipate, squander

Scater (1×)

scavage, *v.* To clean out

scauer (1×)

sciatica, *n.* A disease characterised by

pain in the great sciatic nerve and its
 branches

Ciatica (1×), sciatica (2×)

scissors, *n.* Scissors

sisers (1×)

scour, *v.* To cleanse or polish

surre (1×), skourid (1×),
 skowrid (1×)

scrab, *v.* To scratch, claw

scrape (2×), scrapid (1×)

scroffle, *n.* Scrofulous swellings

Scrophule (2×), scrophules (7×)

scruple, *n.* A unit of weight (20 grains)

scruples (2×)

scum, *n.* Foam, froth

scome (1×), Skome (1×)

scurf, *n.* A morbid condition of the skin

scoorf (1×)

sealskin, *n.* The skin of any of the Fur
 Seals, prepared for use as a garment, for
 the covering of a box, etc

seale skyn (1×)

searce, *n.* A sieve or strainer

serce (1×)

search, *v.* To explore, examine
 thoroughly

searche (2×), Searching (1×),

searchith (1×), serche (1×)

searcher, *n.* An instrument used in
 making a search

sercher (2×)

see, *v.* To see

saw (1×), se (11×), see (5×), seen (1×), seene (1×), sees (2×), seing (1×), seist (3×), sene (3×), seyst (1×)

seed, n. Seed

sed (2×), sede (23×), sedes (2×), seed (2×), seede (2×), seedes (3×)

seed, v. To produce seed

sedith (1×)

seem, v. To seem

Seame (1×), seme (2×), semeth (1×), semithe (4×)

seethe, v. To boil

seath (3×), seeth (6×), Seethe (3×), seith (5×), Seithe (14×), seth (1×), sethe (24×), sething (2×), seyth (1×)

sege → **sage**

seide → **say**

selven → **salve**

send, v. To send

send (2×), sendithe (2×)

sengreen, n. The houseleek, *Sempervivum tectorum*

Sengren (1×), sengrue (1×)

senna, n. A shrub of the *genus Cassia*, native in tropical regions, bearing yellow flowers and flat greenish pods

Ceney (2×), Sene (1×)

Senows → **sinew**

senvy, n. The mustard plant

senvey (1×), senvy (1×)

Serapine → **sagapenum**

serve, v. To serve

serue (1×), serve (1×)

serviable, a. Willing to serve, complaisant, obedient

serviable (1×)

set, v. To set

set (28×)

sew, v. To sew

sew (23×), sewe (2×), sewed (1×), sewet (1×), sewid (3×), sewing (1×), sewinge (5×)

sewit → **suet**

shadow, n. Shadow

shadow (1×)

shaft, n. The long slender rod forming the body of a lance or spear, or of an arrow

shafte (3×)

shake, v. To shake

sheyke (1×)

shall, v. Shall

shal (35×), shall (101×), shallt (1×), shalt (86×), shalte (4×), should (6×), shoulde (4×)

shape, v. To create; in later use, to form, fashion

shapen (1×), shapper (1×)

shard, v. To break into fragments

sherde (1×)

share, n. The division or fork of the body; the pubic region, groin

share (3×)
sharp, *a.* Well adapted for cutting or piercing; having a keen edge or point
 sharp (2×), sharpe (5×)
shave, *v.* To shave
 shaue (1×), shave (1×), shaven (1×), shevithe (1×)
sheaf, *n.* One of the large bundles in which it is usual to bind cereal plants after reaping
 cheyves (1×), Chyves (1×)
sheep, *n.* Sheep
 shepe (15×), shepes (2×), sheps (1×)
sheet, *n.* A napkin, cloth, towel
 sheets (2×), shete (1×), shytt (1×)
shell, *n.* The hard outside covering of an animal, a fruit, etc
 shell (1×), shells (6×)
shellful, *n.* A quantity sufficient to fill a shell
 shelfull (1×)
sherde → **shard**
shert → **shirt**
sheveringe → **shiver**
shevithe → **shave**
shew → **show**
sheyke → **shake**
shift, *v.* To shift
 shift (3×)
shirt, *n.* Shirt
 shert (1×), shirt (3×), shirte (1×)

shiver, *v.* To tremble, shake, quiver
 sheveringe (1×)
shoe, *n.* Shoe
 shoes (1×)
short, *a.* Short
 short (6×), shorte (4×)
shortly, *b.* Shortly
 shortlie (2×)
shot, *v.* To wound or hit with shot
 shot (1×), shott (1×)
shoulder, *n.* Shoulder
 shoulder (3×), shoulders (1×), showlder (1×), shulder (1×)
show, *v.* To show
 shew (3×)
shred, *v.* To rid (a tree, vine, vineyard) of superfluous growth; to prune
 Shred (1×)
shrew, *v.* To shrew
 Shrew (4×), shrewe (3×), shrewed (1×)
shrink, *v.* To become reduced in size, volume, or extent
 shrinking (2×), shrinkinge (1×), shrinkithe (1×), shronken (2×)
shronken → **shrink**
shytt → **sheet**
sick, *a.* Suffering from illness of any kind
 seke (3×), sick (2×), sicke (1×), sike (1×), syck (1×)
sick, *n.* A sick person

seke (1×), sick (2×), sikk (1×)
sickness, *n.* The state of being sick or ill
 sicknes (2×), siknes (1×)
Sic(corie)(curie) → chicory
Sicurie → chicory
side, *n.* Side
 side (6×), sides (2×), syde (26×),
 sydes (7×)
sieve, *n.* A utensil consisting of a
 circular frame with a finely meshed or
 perforated bottom, used to separate the
 coarser from the finer particles of any
 loose material, or as a strainer for liquids
 sief (1×), sifte (1×)
sifte → sieve
sight, *n.* Sight
 sight (5×), sighte (1×)
sign, *n.* A token or indication of some
 fact, quality, etc.
 signe (2×), signes (2×)
silk, *n.* Silk
 silke (1×)
silver, *n.* Silver
 silver (4×)
Sinamound → cinnamon
sinew, *n.* A strong fibrous cord serving
 to connect a muscle with a bone or other
 part; a tendon
 Senows (2×), sinews (1×),
 sinowes (6×), Synew (4×),
 synewe (1×), synews (2×), synoue
 (1×), Synow (1×), synowes (4×),

Synows (3×)
singular, *a.* Special
 singuler (2×)
siphac, *n.* The peritoneum
 ciphac (1×)
sir(op)(ope)(upp) → syrup
sisers → scissors
sit, *v.* To sit
 satt (1×), sit (5×), sitt (2×), sitten
 (1×), sitting (1×), sittinge (1×),
 sittith (1×), sittithe (1×)
sithe, *n.* Sithe
 sithes (1×)
sitrion → citron
skald(ed)(er)(ing)(ith) → scald
Skall(e)(es) → scall
skant(lie)(lye) → scantly
skarce → scarce
skarthe → scarth
sko(urid)(wrid) → scour
Skome → scum
skoorf → scurf
skin, *n.* The skin
 skin (2×), skyn (19×), skyne
 (15×), skyng (1×), skynnes (1×),
 skyns (1×)
skirret, *n.* A perennial umbelliferous
 plant, *Sium sisarum*, a species of water
 parsnip, formerly much cultivated in
 Europe for its esculent tubers; the root
 of this plant
 Skirwhite (1×)



sklender → **slender**

skl(yce)(yse) → **slice**

slain, *a.* That has been slain; killed, slaughtered

slaine (1×)

slake, *v.* To let or set loose; to set free, release

slekythe (1×)

slape, *a.* Slippery; smooth

slape (1×)

slay, *v.* To smite, strike, or beat

slaie (1×), slaye (1×), slaying (1×),

slaythe (1×), Slea (1×), sleythe (1×)

sleep, *n.* Sleep

slepe (3×)

sleep, *v.* To sleep

sleepe (1×), slepe (6×), slepethe (1×)

slekythe → **slake**

slender, *a.* Not stout or fleshy; slim, spare

sklender (2×)

slice, *n.* A relatively thin, flat, broad piece cut from anything

sklyces (1×), sklyse (1×), slice

(1×), slyce (3×)

slice, *v.* To cut into slices

sklyce (1×), slyse (1×)

sliding, *n.* The action of sliding

Slyding (1×)

slip, *v.* To escape, get away, make off

slipp (1×)

slippery, *a.* Slippery

slipperie (1×), slippery (1×)

slit, *v.* To cut into, or cut open, by means of a sharp instrument or weapon

Slitt (1×)

sluggish, *a.* Indisposed to action or exertion; inclined to be slow or slothful; not easily moved to activity

sluggishe (2×)

Slyding → **sliding**

slyse → **slice**

small, *a.* Small

smal (1×), smale (1×), smaler

(1×), smalest (1×), small (28×),

smalle (3×), smow (2×), smowe

(2×)

small, *b.* Small

small (14×)

smallage, *n.* One or other of several varieties of celery or parsley

smallage (4×), smallege (1×)

smarting, *n.* The fact or sensation of feeling a sharp pain, such as is caused by a wound, sore, burn

smarting (1×)

smear, *v.* To anoint with oil, chrism, etc.

Smeare (1×), smere (1×)

smell, *v.* To smell

smell (1×)

smell, *n.* Smell

smell (2×)
smelling, *n.* The action of smelling
 smelling (1×)
smite, *v.* To strike with a weapon, etc.,
 so as to inflict serious injury or death
 smite (1×), smithe (1×), smitten
 (3×), smytinge (1×)
smoke, *n.* Smoke
 smooke (1×)
smow(e) → **small**
snail, *n.* A snail
 Snails (2×), Snayles (1×),
 snaylles (1×)
sneeze, *v.* To sneeze
 nese (1×), nesid (1×)
sneezing, *n.* The action of the verb
 sneeze; a preparation or powder
 inducing sternutation
 nesing (2×), nesis (1×)
so, *b.* So
 so (199×), soo (1×)
soak, *v.* To soak
 souke (1×)
soaking, *a.* Taking in moisture,
 absorbent
 sooking (1×)
soap, *n.* A substance formed by the
 combination of certain oils and fats with
 alkaline bases, and used for washing or
 cleansing purposes
 soope (1×), sope (13×)
soaping, *n.* The action or process of

smearing, rubbing, or washing with soap
 sowpinge (1×)
soberly, *b.* Gravely, seriously, quietly
 soberlie (1×)
socotrine, *a.* A drug prepared from the
 juice of *Aloe Socotrina*, originally
 obtained from the island of Socotra
 cicotryne (1×)
sodden, *v.* To make sodden; to soak in,
 or saturate with, water
 sodden (9×), soden (6×), sodene
 (1×), sooden (1×)
soft, *a.* Soft
 soft (11×), softie (12×)
soften, *v.* To mitigate, assuage, or
 diminish; to render less painful or more
 easy to bear
 soften (2×)
softly, *b.* Softly
 softelie (3×), softlie (1×), softly
 (1×), softlye (2×)
softness, *n.* The state or quality of being
 soft
 softnes (1×)
sold, *v.* To close or heal
 sowing (1×), sowed (1×)
sole, *n.* The under surface of the foot
 soles (1×), sooles (1×)
solsecle, *n.* The marigold
 solsequele (1×)
soluble, *a.* Free from constipation or
 costiveness; relaxed

solible (1×), soluble (1×)

some, *a.* Some
 some (50×), somme (5×), Soome (9×)

somer → **summer**

something, *n.* Some unspecified or indeterminate thing
 something (1×), somethink (1×)

sometimes, *b.* Sometimes
 sometime (10×), sometimes (1×), sometyne (11×), sometime (4×), somtym (1×), Somtyme (8×)

somewhat, *b.* Somewhat
 somewhat (14×), soomewhat (2×)

somewhile, *b.* At some time
 somewhere (2×), somewhiles (7×), somwhile (1×), somewhiles (1×)

sommer → **summer**

son, *n.* A male child or person in relation to either or to both of his parents
 sonne (1×)

sonder → **sunder**

soon, *b.* Soon
 sone (5×), soner (1×), sonne (6×), soone (2×)

sore, *n.* A bodily injury; a wound
 soore (6×), sore (67×), sores (16×)

sorrel, *n.* One or other of certain small perennial plants belonging to the *genus Rumex*, characterised by a sour taste, and to some extent cultivated for culinary purposes
 sorrell (5×), sorelll (1×), sorest (1×), sorrell (1×)

sot(ellie)(ell)(il)(ill)(lye)(telie) → **subtle**

sound, *v.* To sound
 sownd (1×)

sour, *a.* Having a tart or acid taste
 sower (3×), sowre (3×), sower (1×), sowrest (1×)

south, *a.* South
 South (1×)

sovereign, *a.* Standing out above others or excelling in some respect
 soueraign (1×)

sow, *v.* To perform the action of scattering or depositing seed on or in the ground so that it may grow
 sow (1×)

sow(ding) → **sold**

sowple → **supple**

space, *n.* Lapse or extent of time between two definite points, events, etc.
 space (44×), spaice (2×)

spain, *n.* Spain
 Spaine (1×), spayen (1×)

span, *n.* The distance from the tip of the thumb to the tip of the little finger
 spane (2×)

speak, *v.* To speak

speake (1×), spoken (1×)

speake, *v.* To speak

speake (1×)

special, *a.* Special

Spetiall (1×)

specially, *b.* In a special manner

specialle (3×), specially (1×),

speciallye (1×)

speech, *n.* The act of speaking

speche (1×)

speechless, *a.* Lacking the faculty of speech

specheles (1×)

speed, *v.* To succeed or prosper

sped (1×), spede (1×)

speedily, *b.* In a speedy manner; quickly

spedelye (1×)

spelk, *v.* To fasten with a spelk

spelked (2×)

spelk, *n.* A surgical splint

spelkes (1×)

spelt, *v.* To husk or pound (grain); to bruise or split

spelt (7×), spelte (1×), speltid (1×)

spelt, *n.* A species of grain (*Triticum spelta*) related to wheat

spelts (2×)

Spertwoorte → **spirit-wort**

spice, *n.* One or other of various strongly flavoured or aromatic

substances of vegetable origin

spycles (1×)

spignel, *n.* The aromatic root of the umbelliferous plant *Meum*

athamanticum, used, when dried and ground, in medicine as a carminative or stimulant, or as a spice in cookery

spycknell (1×), spyknell (1×)

spikenard, *n.* An aromatic substance (employed in ancient times in the preparation of a costly ointment or oil)

spiknard (1×), Spinage (1×)

spirit-wort, *n.* An essence, distilled extract, or alcoholic solution, of a specified substance

Spertwoorte (1×)

spit, *v.* To spit

spit (1×), spitt (1×)

spittle, *n.* Saliva, spit

spittills (1×)

spleen, *n.* Splene

splen (2×), splent (1×)

splet, *v.* To spread, smear

splet (2×), splett (2×)

sponge, *n.* The soft, light, porous, and easily compressible framework which remains after the living matter has been removed from various species of porifers
sponge (1×)

spongiosity, *n.* Spongy or porous nature
spongiositie (1×)

spoon, *n.* Spoon

spone (2×)
spoonful, *n.* A spoonful; As much as fills
 a spoon

sponefull (29×), sponefulls (1×),
 sponfull (1×), sponnefull (1×),
 spoonefull (1×), spoonefulls
 (1×), spoonfull (3×), spoonfulls
 (2×)

spot, *n.* An eruptive or other disfiguring
 mark on the skin

spotts (3×)

spread, *v.* To spread

spread (1×), sprede (1×), spred
 (8×), spredd (2×), spredde (1×),
 sprede (25×), spredithe (2×),
 spread (1×), sprede (1×)

spring, *v.* To spread

spring (1×), springe (3×),
 springethe (1×)

spronge → **prong**

spurge, *n.* One or other of several species
 of plants belonging to the extensive
genus Euphorbia, many of which are
 characterized by an acrid milky juice
 possessing purgative or medicinal
 properties

spurge (1×)

spyces → **spice**

squill, *n.* A bulb or root of the sea-onion
 or other related plant

Squilles (1×), Sqwyllts (1×)

squirt, *n.* A small tubular instrument by

which water may be squirted; a form of
 syringe

squirt (2×), squirte (1×), squyrt
 (1×), sqwirt (1×)

squirt, *v.* To eject or spirt out water in a
 jet or slight stream

squirtid (1×)

stable, *n.* A building fitted with stalls,
 loose-boxes, rack and manger and
 harness appliances, in which horses are
 kept

stable (1×)

staff, *n.* Staff

staff (1×)

stain, *v.* To deprive of colour

stayne (1×)

stale, *a.* Freed from dregs or lees; hence,
 old and strong

stail (1×), staile (2×), stale (5×),
 stall (1×)

stalk, *n.* The main stem of a herbaceous
 plant, bearing the flowers and leaves

stalk (1×)

stamp, *v.* To bray in a mortar; to beat to
 a pulp or powder

Stamp (34×), stampe (21×),
 stamped (1×), stampid (9×)

stand, *v.* To stand; to rest; to lie

stand (21×), stande (1×),
 standithe (1×)

stark, *v.* To become stiff or rigid

starke (1×)

start, *v.* To start

startithe (1×)

state, *n.* A combination of circumstances or attributes belonging for the time being to a person or thing

state (1×)

staunch, *v.* To stop the flow of

stanche (1×), staunche (3×),

stawnche (1×), strange (1×)

stavesacre, *n.* A plant of the species *Delphinium Staphisagria*, native in southern Europe and Asia Minor

Stavesacre (2×)

stay, *v.* To support, sustain, hold up

staie (1×), staing (1×), stey (1×),

stode (1×), stoode (1×)

stead, *v.* To suffice for, serve the needs of

stea (1×)

steadfast, *a.* Fixed or secure in position

stedfast (1×)

steep, *v.* To soak in water or other liquid

stepe (1×), stepped (1×), stepid (2×)

ster(e) → **stir**

sterrer → **stirrer**

stur(r) → **stir**

styrring → **stir**

stew, *n.* A vessel for boiling, a caldron

stewe (1×)

stew, *v.* To boil slowly in a close vessel

stew (1×)

stick, *v.* To stab, pierce, or transfix with a thrust of a spear, sword, knife, or other sharp instrument

stick (2×), stickithe (2×), stik

(1×), styck (1×), stycke (1×)

stick, *n.* A rod or staff of wood

stick (10×), sticks (1×), stik (1×),

stikk (1×), styck (2×)

stiff, *a.* Rigid; not flexible or pliant

stiff (2×)

still, *v.* To cause to distil or fall in drops

still (4×)

still, *b.* Still

still (7×)

stink, *n.* A foul, disgusting, or offensive smell

stinche (1×), stinke (2×)

stinking, *n.* The action of stinking

stinking (1×)

stir, *v.* To stir

stere (11×), stering (4×), stir (2×),

stirr (3×), stirring (1×), stur (8×),

Sturr (4×), sturring (2×), styrring

(1×)

stirrer, *n.* An instrument or appliance for stirring a liquid or the like

sterrer (2×)

stitch, *v.* To prick, stab

stiche (1×), stiches (2×)

stitch, *n.* A thrust, stab

stiche (8×), styches (1×)

stomach, *n.* Stomach

stomack (1×), stomak (6×),
stomake (9×)

stone, *n.* A stone; a hard morbid
concretion in the body, as in the kidney
or urinary bladder, or in the gallbladder

stone (34×), stones (7×), stonne
(1×), stoone (9×), stoonies (1×)

stonecrop, *n.* The common name of
Sedum acre, a herb with bright yellow
flowers and small cylindrical fleshy
sessile leaves

stonecrop (1×), stonehore (1×)

stool, *n.* The action of evacuating the
bowels; an act of discharging fæces

stole (1×), stoole (1×), stooles
(3×)

stop, *v.* To stop

stop (4×), stopp (2×), stoppe
(2×), stopped (2×), stopping (2×),
stoppinge (1×), stoppithe (1×),
stopt (1×)

store, *v.* To furnish, supply, stock with
something

store (1×)

straight, *a.* Not crooked; free from
curvature

straight (1×), strait (2×), straitte
(10×), streight (2×)

strain, *v.* To bind tightly; to clasp,
squeeze

strain (4×), straine (6×), stranid
(1×), strayn (2×), straynd (1×),

strayne (1×), straynid (1×), stream
(1×), streane (4×), streamid (1×),
strein (26×), streine (2×), streyn
(9×), streynd (1×), streyne (1×),
streynid (4×)

strainer, *n.* A utensil or device for
straining, filtering, or sifting; a filter,
sieve, screen, or the like

strener (1×)

strangle, *v.* To kill by external
compression of the throat

strangled (1×)

strangury, *n.* A disease of the urinary
organs characterized by slow and painful
emission of urine

strangulion (1×), Strangurie
(5×), Strangurye (2×)

strawberry, *n.* The fruit (popularly so
called) of any species of the *genus*
Fragaria, a soft bag-shaped receptacle,
of a characteristic colour (scarlet to
yellowish), full of juicy acid pulp, and
dotted over with small yellow seed-like
achenes

Strauburie (1×), strawberre (1×),
Strawburies (1×)

strew, *v.* To scatter, spread loosely

strew (36×), strewe (7×), strewid
(2×), strewing (3×)

strike, *v.* To strike

stricken (1×), strike (1×)

string, *v.* To fit (a bow) with its string;

to bend or prepare for use by slipping
the loop of the bowstring into its notch

stringe (1×)

strip, *v.* To denude (a thing) of its
covering

stripp (1×), stroped (1×)

strive, *v.* To be in a state of variance or
mutual hostility

stryve (2×)

stroke, *n.* A bruise, wound, cut

Stroke (5×), strokes (1×)

strong, *a.* Strong

strong (6×), stronge (6×),

strongest (1×)

strongly, *b.* Strongly

stronglie (1×), stronglier (1×)

struggling, *n.* The action of struggling

strogolyn (1×)

styches → **stitch**

styk(e) → **stick**

sublimate, *n.* A solid product of
sublimation

Sublimate (1×)

substance, *n.* A substance

substance (1×)

subtle, *a.* Of thin consistency, tenuous;
not dense

sotelie (1×), Sotell (1×), sotellie

(1×), sotil (1×), sotill (4×), sotlye

(1×), sottellie (1×), sottell (2×),

suttill (2×)

succory, *n.* The plant *Cichorium Intybus*,

with bright blue flowers, found wild in
England

Succorie (1×)

suck, *v.* To extract or draw from or out
of a thing

succid (1×)

sue, *v.* To follow

sued (1×)

suerlie → **surely**

suet, *n.* The solid fat round the loins and
kidneys of certain animals, as that of the
ox and sheep, which, chopped up, is
used in cooking, and, when rendered
down, forms tallow

sewit (1×)

suffer, *v.* To undergo, endure

suffer (27×), sufferid (2×),

sufferithe (1×), suffred (1×)

suffice, *v.* To be enough, sufficient, or
adequate for a purpose

sufficthe (1×), suffise (1×)

sufficiently, *b.* In a sufficient manner

sufficientlie (1×)

sugar, *n.* Sugar

sugar (2×), suger (12×), Sugerr

(2×)

suing, *n.* Proportion

suing (1×)

sulphur, *n.* A greenish-yellow non-
metallic substance, found abundantly in
volcanic regions, and occurring free in
nature as a brittle crystalline solid

Sulphur (3×)

summer, *n.* Summer
 somer (8×), sommer (7×),
 summer (1×)

sun, *n.* Sun
 sone (5×), sune (1×), sunne (1×)

sunder, *b.* Apart or separate from
 another or from one another
 sonder (2×), sunder (7×)

sundry, *a.* Having an existence,
 position, or status apart
 sundrie (1×)

superfluid, *n.* A fluid that exhibits
 superfluidity
 superfluitie (3×), superfluity
 (2×), Superfluitye (3×),
 superfluities (1×)

supperless, *a.* Without supper
 superlesse (1×)

supple, *a.* Of soft or yielding
 consistency; not rigid; soft, tender
 sowple (2×), supple (1×)

suppose, *v.* To hold as a belief or
 opinion; to believe as a fact
 suppose (1×)

suppository, *n.* A plug of conical or
 cylindrical shape to be introduced into
 the rectum in order to stimulate the
 bowels to action (or to reduce
 hæmorrhoids), or into the vagina or
 urethra for various purposes
 suppositarie (1×), suppositers

(1×)

surely, *b.* Surely
 suerlie (3×), surelie (3×), surelye
 (1×)

surgeon, *n.* One who practises the art of
 healing by manual operation
 surgeon (5×), Surgeons (1×),
 surgians (1×), surgion (1×),
 surgions (1×)

swallow, *v.* To swallow
 swallow (3×), swallow (2×),
 swallowed (1×)

sweating, *n.* Emission of sweat from the
 pores of the skin
 Swytinge (1×)

sweet, *a.* Sweet
 sweat (8×), sweate (1×), swete
 (2×)

swell, *v.* To make larger in bulk, increase
 the size of, cause to expand; to enlarge
 morbidly
 swell (2×), swollen (3×), swoolen
 (1×)

swelling, *n.* The process of becoming, or
 condition of having become, larger in
 bulk, as by internal pressure; distension,
 dilatation, expansion
 swelling (10×), swellinge (6×),
 swellings (1×)

swine, *n.* Swine
 swine (2×), Swines (9×), Swins
 (1×), swyne (3×), swynes (11×),

T

Swyns (1×)

swing, *v.* To beat up, whip (milk, eggs, etc.)

swing (1×), swonged (1×)

swol(l)en → **swell**

sword, *n.* A sword

Swerde (1×), Swoorde (1×),
sword (1×), sworde (3×)

swyn(e) → **swine**

syck → **sick**

syde → **side**

Synamo(n)(nd)(und) → **cinnamon**

Synew(e) → **sinew**

syno(ue)(w) → **sinew**

sphac, *n.* The peritoneum

cyphac (2×), cypres (1×)

syringe, *n.* A small cylindrical instrument, in its commonest form consisting of a tube fitted with a piston, but in some modern types of a tube with a rubber bulb attached, used to draw in a quantity of water or other liquid, and to eject it forcibly in a stream or jet for making injections, cleansing wounds, etc.

syring (1×)

syrup, *n.* A thick sweet liquid; one consisting of a concentrated solution of sugar in water (or other medium, e.g. the juices of fruits); A thick sweet liquid

sirop (1×), sirope (1×), sirupp (2×), Syrup (2×)

table, *n.* A flat and comparatively thin piece of wood, stone, metal, or other solid material (usually shaped by art)

table (3×)

tail, *n.* Tail

tale (1×)

take, *v.* To take

Taik (113×), Taike (35×), Take (342×), taken (9×), taking (1×),
tayk (1×), Tayke (4×)

talent, *n.* Inclination, propension, or disposition for anything; wish, desire, appetite

talent (1×)

tallow, *n.* Suet; the fat or adipose tissue of an animal

tallow (1×), talow (10×), talowe (2×)

tame, *a.* Domestic

tame (1×)

tanner ooze, *n.* The tree *Rhus Coriaria*, the dried and chopped leaves and shoots of which are used in tanning

Tannar owse (1×)

tansy, *n.* An erect herbaceous plant, *Tanacetum vulgare*

tamsey (1×), tansey (4×)

tap, *n.* A cylindrical stick, long peg, or stopper, for closing and opening a hole

bored in a vessel

tapp (1×)

tap-house, *n.* A house where beer drawn from the tap is sold in small quantities; an ale-house

taphouse (1×)

tap-staff, *n.* A staff used to stop the tap-hole of a mash-tub

tapstaff (1×)

tarde → **turd**

tarie(d) → **tary**

tart, *n.* Name for various dishes consisting of a crust of baked pastry enclosing different ingredients

tart (1×)

tartar, *n.* Present in grape juice, deposited in a crude form in the process of fermentation, and adhering to the sides of wine-casks in the form of a hard crust

tartar (2×), tartur (1×), tarture (1×)

tary, *v.* To weary, tire, fatigue

tarie (2×), taried (1×)

teasel, *n.* A plant of the *genus Dipsacus*, comprising herbs with prickly leaves and flower-heads

tasel (1×)

teat, *n.* The small protuberance at the tip of each breast or udder in female mammalia

tete (2×), tetes (2×)

tees(e) → **tissue**

temper, *v.* To bring (anything) to a proper or suitable condition, state, or quality, by mingling with something else

temp (1×), temper (15×),
temperid (1×)

temperate, *a.* Tempered not excessive in degree moderate

temperate (2×)

temple, *n.* The flattened region on each side of the (human) forehead

temple (1×), temples (7×)

tender, *a.* Soft or delicate in texture or consistence

tender (7×), tenderine (1×)

tenderly, *b.* With delicacy or softness of touch, action, or treatment

tenderlie (2×)

tent, *n.* A roll or pledget, usually of soft absorbent material, often medicated, or sometimes of a medicinal substance, formerly much used to search and cleanse a wound, or to keep open or distend a wound, sore, or natural orifice

tent (27×)

tent, *v.* To treat by means of a tent

tent (3×), tente (7×), tenting (1×), tentinge (2×)

tercel, *n.* The male of any kind of hawk

tersells (1×)

terfoyle → **trefoil**

tertian, *a.* Of a fever or ague, characterised by the occurrence of a paroxysm every third (i.e. every alternate) day

tertian (3×)

tete → **teat**

tetter, *n.* A general term for any pustular herpetiform eruption of the skin, as eczema, herpes, impetigo, ringworm, etc

teter (1×), teters (1×), tetures (2×)

thank, *n.* Kindly thought or feeling entertained towards any one for favour or services received

thanks (1×)

then, *b.* Then

then (506×), thenn (3×), theyn (1×)

there, *b.* There

ther (72×), There (12×)

thereabout, *b.* Thereabout

theraboute (1×)

thereat, *b.* Thereat

therat (4×)

therefore, *b.* Therefore

therfor (1×), therefore (29×)

therefrom, *b.* Therefrom

therfro (5×)

therein, *b.* Therein

therein (1×), therin (48×)

thereof, *b.* Thereof

thereof (6×), therof (111×)

thereon, *b.* Thereon

theron (20×)

thereto, *b.* Thereto

thereto (1×), therto (94×)

thereupon, *b.* Thereupon

thervpon (17×), thervpone (1×)

therewith, *b.* Therewith

therwith (72×), therwithe (3×)

therof, *b.* Therof

therof (1×)

thick, *v.* To make dense in consistence

thick (1×)

thick, *a.* Thick

thic (1×), thick (16×), thicke (1×), thik (8×), thyck (2×)

thickness, *n.* The quality or condition of being thick

thicknes (1×)

thigh, *n.* Thigh

thighe (7×), thyes (1×)

thin, *a.* Thin

thik (3×), thyn (3×)

thing, *n.* Thing

thing (9×), thinge (7×), thinges (6×), things (11×), thynges (1×)

think, *v.* To think

think (1×), thinke (1×), thoughe (2×), thought (3×)

tho(o)(u)mbe → **thumb**

thondered → **thunder**

thone, *n.* Coalesced form of 'the one'

thone (3×), thoone (1×)

thorn, *n.* A thorn

thorn (1×), thorne (2×)

thother, *a.* Coalesced form of 'the other'

thother (8×)

thread, *n.* A fine cord composed of the fibres or filaments of flax, cotton, wool, silk, etc.

threde (12×), thredes (1×)

thrice, *b.* Three times

thries (1×), thrise (2×), troies (1×), tryes (1×)

thriste → **thrust**

throat, *n.* Throat

Throte (2×)

throat boll, *n.* The protuberance in the front of the throat; the Adam's apple

throte bole (1×)

throw, *v.* To throw

throw (1×)

thrust, *v.* To thrust

thriste (1×), thrust (13×),
thrusten (2×), thurst (2×),
thursten (2×), trus (1×), trust (2×)

thrust, *n.* The action of thrusting

thrust (1×)

thrusting, *n.* the action of thrusting

trushing (1×)

thumb, *n.* Thumb

thombe (4×), thoombe (1×),
thoumbes (1×), thumbe (1×)

thunder, *v.* To cause or give forth

thunder; to sound with thunder

thondered (1×)

thus, *b.* In this manner

thus (30×)

thyes → **thigh**

thyn → **thin**

thyng → **thing**

tie, *v.* To bind, fasten

tie (2×)

tilestone, *n.* A brick or tile

tile stone (1×), tyell stone (1×),
tyle stone (3×)

till, *b.* Until

till (12×), tyll (1×)

time, *n.* Time

time (4×), times (5×), tyme (45×), tymes (30×)

tissue, *n.* The substance, structure, or texture of which an animal or plant body, or any part or organ of it, is composed

tees (1×), teese (1×)

toast, *n.* A slice or piece of bread browned at the fire

tooste (1×)

toe, *n.* Toe

toes (2×)

together, *b.* Together

to gether (11×), to gethet (1×),
together (175×)

token, *n.* Something that serves to indicate a fact, event, object, feeling, etc.

token (1×), tokens (8×)

tongue, n. Tongue
 tonge (2×), tonges (1×), tounge (1×), tounge (2×), townge (1×)

toorde → **turd**

tooth, n. Tooth
 teeth (1×), teithe (2×), tethe (1×), tiethe (1×), toothe (9×), tothe (9×)

top, n. The highest or uppermost part
 top (2×), topp (4×), toppe (1×), topps (1×)

Totie → **tutty**

touch, v. To touch
 touche (5×), touching (1×), touchinge (1×), towche (1×), towching (1×), towching (1×)

tough, a. Tough
 oughe (2×)

towel, n. Towel
 towell (8×)

tr(i)acle → **triacle**

travail, n. Bodily or mental labour or toil, especially of a painful or oppressive nature
 travell (1×)

treacle, n. A medicinal compound
 tracle (1×), treacle (1×), triacle (5×), triacle (3×)

treat, n. Management in the application of remedies; medical or surgical application or service

trete (3×)

tree, n. Tree
 tre (10×), tree (4×), trees (3×)

trefoil, n. A plant of the genus *Trifolium*, having triple or trifoliate leaves; a clover
 terfoyle (1×), tryfoyll (1×)

trencher, n. A cutting or slicing instrument; a knife
 trencher (2×)

trew → **true**

trindle, n. Something of rounded form, as a pellet of sheep's or goat's dung
 trindles (1×), tryddles (1×)

troies → **thrice**

trouble, v. To disturb, agitate, ruffle
 trooblethe (1×)

trow(e) → **true**

true, a. True
 trew (2×), trow (1×), trowe (1×)

trus(t) → **thrust**

truth, n. Truth
 truthe (2×)

tryddles → **trindle**

tryes → **thrice**

tryfoyll → **tryfoil**

turbith, n. A cathartic drug prepared from the root of East Indian jalap, *Ipomæa Turpethum*, an Indian and Australian plant
 Turbith (1×)

turd, n. A lump or piece of excrement

tarde (1×), toorde (1×), turde
(1×)

turn, *v.* To turn

turne (4×), turning (1×),
turnithe (1×)

turbentyne → **turpentine**

turnsole, *n.* A violet-blue or purple
colouring matter, obtained from the
plant *Crozophora tinctoria*

turnsall (6×)

turpentine, *n.* A term applied originally
to the semifluid resin of the terebinth
tree, *Pistacia Terebinthus*

turbentyne (1×), turpentine (3×),
turpentyne (11×)

tutty, *n.* A nosegay, a posy; a tuft or
bunch of flowers

Totie (1×), tutia (1×)

twice, *b.* Two (successive) times; on two
occasions

twies (4×), twice (19×)

twin, *v.* To put asunder

twynid (1×)

twin, *a.* Consisting of two; twofold,
double

Twyne (1×)

ty(ell)(le) stone → **tilestone**

tyll → **till**

tyme(s) → **time**

U

unbroken, *a.* Not broken or infringed
vnbroken (1×)

unconfirmed, *a.* Not supported or
established by further evidence
vnconfirmid (1×)

understand, *v.* To comprehend
Vnderstand (1×)

undertake, *v.* To take by craft, to entrap;
to overtake

ndertake (1×)

undo, *v.* To undo
Vndo (13×)

uneath, *b.* Not easily
vnethe (1×)

ungle, *n.* A claw, nail, or hoof
vngle (2×)

unguent, *n.* An ointment or salve
unguentum viride (1×), vnguent
viride (1×), vnguentum (21×),
vnguentum allum (1×),
vnguentum ruptorium (7×),
vnguentum viride (15×),
vnguentum viridem (1×),
vnguentum viride (1×)

unhealed, *a.* Not healed
vnhealid (1×)

unmoveble → **immovable**

unnatural, *a.* Not natural; contrary to
nature

inaturall (2×)
unquenched, *a.* Unslaked
 vnquenched (1×), vnquenshid (4×), vnquenshyd (1×)
unquest, *a.* Not crashed
 vnquist (1×)
unquietness, *n.* A source of trouble or disquiet
 vnquietnes (1×)
unremoved, *a.* Not removed or done away with
 vnremovid (1×)
unset, *a.* Not planted
 vnset (4×), vnsett (2×)
unsewed, *a.* Not sewed
 vnsewid (2×)
unslacked, *a.* Unslackened, unrelaxed
 vnslekked (1×), vnslekid (2×), vnslekyd (1×)
unspell, *v.* To undo or dissolve
 vnspelt (1×)
upper, *a.* Situated in, located on, a higher or loftier position, high ground, etc.
 vpper (3×)
uppermost, *a.* In or to the highest, upmost, or most elevated position or place
 vppermost (2×), vppermoste (1×)
upright, *a.* Erect on the feet or end; in or into a vertical position
 vpright (1×)

upward, *b.* To or towards a higher position or plane

vpward (5×), vpwarde (2×)

urine, *n.* The excrementitious fluid secreted from the blood by the kidneys in man and the higher animals, stored in the bladder, and voided at intervals through the urethra

vrine (1×), vryne (2×)

use, *v.* To use

vse (44×), vse, (1×), vsted (2×), vsid (2×), vsinge (1×)

utter, *a.* That is farther out than another (implied or distinguished as inner); forming the exterior part or outlying portion

vtter (4×)

uttermost, *a.* Outermost; farthest out or off; remotest

vttermost (1×)

V

vain(e) → **vein**

valerian, *n.* One or other of the various species of herbaceous plants belonging to the widely-distributed *genus* *Valeriana*, many of which have been used medicinally as stimulants or antispasmodics

valerian (2×), valeriane (1×)

vehement, *n.* Intense, severe

Vehement (1x)

vein, *n.* Vein

vain (1x), vaine (1x), veine (2x),

veines (3x), veins (2x), venies

(2x), veyn (1x)

velvet, *n.* A textile fabric of silk having a short, dense, and smooth piled surface

velvet (1x)

venice, *n.* Venice

venece (1x)

venom, *v.* Covered, charged, imbued, impregnated, or smeared with venom

venemid (1x)

venomous, *a.* Morally or spiritually hurtful or injurious; pernicious

venemous (1x), venimous (1x)

vent, *n.* The action of emitting or discharging

vent (1x)

verdigris, *n.* A green or greenish blue substance obtained artificially by the action of dilute acetic acid on thin plates of copper

vertgreace (3x), vertgrece (3x)

verges → **verjuice**

verily, *b.* In truth or verity; as a matter of truth or fact

verilie (2x)

verjuice, *n.* The acid juice of green or unripe grapes, crab-apples, or other sour fruit, expressed and formed into a liquor

verges (1x)

vermilion, *n.* Cinnabar or red crystalline

mercuric sulphide

vermilyon (3x), vermylion (1x)

vertew → **virtue**

vertgre(a)ce → **verdigris**

vertue → **virtue**

vervain, *n.* The common European and British herbaceous plant, *Verbena officinalis*

vervain (2x), vervine (2x), vervyn (1x), vervyne (2x)

very, *b.* Very

vere (11x), veri (1x), verie (23x),

Very (5x), verye (1x)

vessel, *n.* Any article designed to serve as a receptacle for a liquid or other substance

Vessell (20x), vessells (3x)

vexing, *n.* The action of vexing

vexinge (1x)

vial, *n.* A vessel of a small or moderate size used for holding liquids

viol (2x), violll (3x)

vice, *n.* A fault, defect, blemish or imperfection

vice (1x)

vine, *n.* The trailing or climbing plant, *Vitis vini-fera*, bearing the grapes from which ordinary wine is made

vine (1x)

vinegar, *n.* Vinegar, a liquid produced by

the acetous fermentation of wine and some other alcoholic liquors

vinager (4×), vinagre (1×),
vineger (11×), vinegre (1×),
vinigar (1×), viniger (16×)

viol → **vial**

violently, *b.* By means of physical strength or violence

violentlie (1×)

violet, *n.* A plant or flower of the *genus* *Viola* (*V. odorata*), the sweet-smelling violet, growing wild, and cultivated in gardens

violet (9×), violets (1×)

violl → **vial**

virgin wax, *n.* Fresh, new, or unused bees-wax, sometimes that produced by the first swarm of bees

virgin wax (2×)

virtue, *n.* Virtue

vertew (3×), vertue (2×)

visage, *n.* The face, the front part of the head, of a person

visag (1×), visage (11×)

vitriol, *n.* One or other of various native or artificial sulphates of metals used in the arts or medicinally

vitrioll (1×)

vn(n)c(e) → **ounce**

uncurable → **incurable**

unguce → **ounce**

voice, *n.* Sound, or the whole body of

sounds, made or produced by the vocal organs of man

voice (1×)

void, *a.* Containing no matter; empty, unfilled

void (1×), voide (1×)

vomit, *v.* To bring up and eject the contents of the stomach by the mouth

vomitt (2×)

vomit, *n.* The vomit, throw up

vomit (1×), vomite (1×), Vomitt (3×)

vomiting, *n.* The act of ejecting the contents of the stomach through the mouth

vomiting (1×)

W

wag, *v.* To be in motion or activity; to stir, move

wagge (1×)

waie → **way**

waist, *n.* The waist

waist (2×)

wake, *v.* To wake

wakid (1×)

walk, *v.* To walk

walk (3×), walke (1×), walked (1×)

wall, *n.* A wall

wall (1×), walls (1×)
wallwort, *n.* The caprifoliaceous plant
Sambucus Ebulus, also called Dwarf
 Elder, Ground Elder, Danewort, Danes'
 Blood, and Daneweed

walwort (1×)

walnut, *n.* The nut of the common
 walnut-tree, *Juglans regia*, consisting of
 a two-lobed seed

wall nutt (1×), wallnot (1×),
 wallnut (1×), walnet (1×), walnus
 (1×), walnut (2×), walnutt (1×)

wamble, *n.* A rolling or uneasiness in
 the stomach; a feeling of nausea

wunble (2×)

wan, *n.* A dark or livid mark produced
 by a blow; a bruise

Wann (1×), Wannes (1×),
 Wannie (1×)

want, *n.* Deficiency, shortage, lack of
 something desirable or necessary

want (3×), wante (1×)

ware, *a.* Cognizant, informed, conscious

ware (1×)

ware, *n.* Pus, matter; Seaweed

ware (2×), wores (1×)

warely, *b.* Watchfully, cautiously,
 circumspectly

warely (1×)

wark, *n.* A pain, an ache

wark (6×), warke (1×)

warm, *v.* To make warm

warm (2×), warme (5×)

warm, *a.* Having a fairly high
 temperature

warm (5×), Warme (41×)

warranty, *n.* Warranty

warrantise (3×)

wash, *v.* To cleanse, remove the dirt

washe (14×), washed (1×),
 washid (6×), wasshed (1×), wesh
 (3×), weshe (28×), weshid (2×),
 weshing (2×), wesshed (2×),
 wessen (1×)

waste, *v.* To consume, use up, wear
 away, exhaust

waisted (1×), waistid (8×),
 wasted (1×), wastid (2×)

watch, *v.* To remain awake with a sick
 person for the purpose of rendering help
 or comfort

watche (2×)

water, *n.* Water

water (141×), waters (3×), watter
 (8×)

water, *v.* To furnish with a supply of
 water

waterithe (1×)

water-cress, *n.* The hardy perennial,
Nasturtium officinale, found in
 abundance near springs and in small
 running streams, and now widely
 cultivated for use as a salad

water cresses (2×)

watering, *a.* Of eyes: Discharging watery fluid

watering (1×), Wateringe (1×)

wax, *n.* Wax

wax (23×), waxe (30×)

wax, *v.* To grow, increase

waxed (1×), waxen (1×), waxid (1×), waxing (1×), waxith (2×), waxithe (3×)

way, *n.* Way; Road, path: manner

waie (2×), way (4×)

way → **whey**

waybread, *n.* A plant of the *genus Plantago*, as the Greater Plantain (*P. major*), a low herb with broad flat leaves spread out close to the ground, and close spikes of inconspicuous flowers, followed by dense cylindrical spikes of seeds

waybryde (1×), waybrye (1×), weybrode (1×)

weapon, *n.* An instrument of any kind used in warfare or in combat to attack and overcome an enemy

weapon (2×), weapone (2×), wepon (1×)

weasand, *n.* The œsophagus or gullet

wesand (1×)

weat → **wet**

web, *n.* A thin white film or opacity growing over the eye

webb (5×), Webbe (1×)

weed, *n.* A herbaceous plant not valued for use or beauty, growing wild and rank, and regarded as cumbering the ground or hindering the growth of superior vegetation

wedes (1×)

week, *n.* Week

weke (2×), wekes (2×)

weight, *n.* Measurement of quantity by means of weighing

weight (11×), weights (1×)

well, *b.* Well

wel (7×), well (145×), welle (1×)

wen, *n.* A lump or protuberance on the body, a knot, bunch, wart

wen (2×), wenn (1×), wenne (1×), wennes (2×), wens (1×)

went → **go**

wesand → **weasand**

we(s)sh(e) → **wash**

wet, *v.* To make (an object) humid or moist by the application of water or other liquid

weat (6×), weatid (1×), weete (2×), wete (8×), weted (1×), wetid (1×), weting (1×)

wet, *a.* Wet

weat (5×), wet (6×), wett (6×)

weybrode → **waybread**

whan → **when**

what, *a.* What

what (5×)

wheal, *n.* A pimple, pustule

wheales (1×)

wheare → **where**

wheat, *n.* The cereal plant (closely related to barley and rye) which yields this grain

wheat (15×), wheate (5×), whet (1×), whete (1×)

whelp, *n.* The young of the dog

whelp (6×)

when, *b.* When

whan (2×), when (154×), whenn (1×)

wherat, *b.* Wherat

wherat (1×)

where, *b.* Where

wheare (1×), wher (9×), where (23×), whre (1×)

whereby, *b.* By, beside

wherbie (2×), wherby (1×)

wherefor, *b.* Wherefor

wherfor (1×), wherefore (12×)

whereof, *b.* Whereof

wherof (1×)

whereon, *b.* Whereon

wheron (1×)

wherethrough, *b.* Through which

wherthroughe (3×)

wherin, *b.* Wherein

wherin (4×)

whhey, *n.* The serum or watery part of milk which remains after the separation

of the curd by coagulation

way (3×), whey (2×)

whie → **why**

while, *n.* A portion of time, considered with respect to its duration

while (5×)

while, *b.* While

while (3×), whiles (5×), whilest (1×), whilles (1×)

whirl-bone, *n.* The round head of a bone turning in the socket of another bone

whirlbone (1×), whirle bone (3×), whirlebone (1×)

white, *a.* White

whit (1×), white (51×), whyte (1×), whytes (1×)

white, *v.* To make white

white (1×)

white, *n.* The translucent viscous fluid surrounding the yolk of an egg

white (38×), whyte (1×)

whiteness, *n.* The quality or condition of being white

whitnes (1×)

whole, *a.* In good condition, sound; whole

who (1×), whole (5×), whoole (1×)

why, *b.* Why

whie (1×)

whyte → **white**

wide, *a.* Wide

wide (2×), wyde (4×)

wild, *a.* Living in a state of nature; not tame, not domesticated

wild (3×), wilde (3×), wyld (2×),
wylde (4×)

will, *v.* As a modal auxiliary: will

wil (11×), will (127×), wilt (7×),
wold (2×), woold (2×), would
(8×), woulde (1×), wyll (2×)

will, *n.* Desire, wish, longing; liking

will (1×)

wimble, *n.* A gimlet

wimble (2×), wymbble (1×)

wind, *n.* Air or gas in any part of the body

winde (4×), wynd (1×), wynde
(3×)

wind, *v.* To put into a curved or twisted form or state; to bend

gwynde (1×)

wine, *n.* The fermented juice of the grape used as a beverage; wine

wine (16×), wyn (1×), wyne (45×)

wine-measure, *n.* The standard of liquid measure used for wine

wine mesour (1×)

winter, *n.* Winter

winter (11×), wynter (5×)

wise, *n.* Manner, mode, fashion, style; The stalk or stem of a plant

wise (14×), wises (1×)

wise, *a.* Having or exercising sound judgement or discernment

wise (1×), wisest (1×)

wisely, *b.* In a wise manner

wisely (1×)

wisp, *n.* A wisp

wispe (1×)

wit, *n.* The faculty of thinking and reasoning in general; mental capacity, understanding

wit (1×), witt (3×), wytt (1×)

withal, *b.* Along with the rest

withall (1×)

withdraw, *v.* To cause to decline, decrease, or disappear

withdraw (2×)

woman, *n.* An adult female human being

woman (7×), womans (3×),
wombe (1×), women (2×),
wooman (1×), woomans (3×),
woomonnes (1×)

womb, *n.* The abdomen

wombe (6×)

wonder, *b.* Wondrously, marvellously, surprisingly; exceedingly, very

wonder (4×), wounder (2×),
wunder (1×)

wonderful, *a.* Full of wonder; such as to excite wonder or astonishment; Full of wonder

wonderfull (1×), wondeurfull

(1x), wonderfull (4x)
wonderfully, *b.* In a wonderful manner
 wonderfullie (1x), wonderfully
 (1x), wonderfullie (1x)

wood, *n.* Wood

wood (3x), woode (2x)

woodbind, *n.* A name for various plants
 of a climbing habit

woodbind (1x), woodbynde (4x)

woodbyne (1x), woodebynd (1x)

wool, *n.* The fine soft curly hair forming
 the fleecy coat of the domesticated
 sheep

woole (4x)

woolen, *a.* Made of or manufactured
 from wool

woollen (1x)

word, *n.* Speech, utterance, verbal
 expression

woordes (2x), words (1x)

wores → **ware**

work, *v.* To work

woork (1x), woorke (7x),

woorketh (1x), woorking (1x),

woorkinge (1x), woorkithe (1x),

work (1x), worketh (1x)

worm, *n.* A member of the *genus*
Lumbricus; a slender, creeping, naked,
 limbless animal, usually brown or
 reddish; any endoparasitic helminth
 breeding in the living body of men and
 other animals

woorm (2x), woorme (3x),
 woormes (5x), worme (1x),
 wormes (1x)

wormwood, *n.* The plant *Artemisia*
Absinthium, proverbial for its bitter taste

woormewood (4x),

woormewoode (1x),

woormwood (1x), woormwoode

(1x), wormewood (4x),

wormewoode (2x), wormwood

(2x)

wort, *n.* A plant, herb, or vegetable,
 used for food or medicine

woort (4x), woorte (4x), woorts

(1x), wort (1x)

wound, *v.* To inflict a wound or wounds

wounded (4x), woundid (8x),

wounding (1x), woundinge (2x)

wound, *n.* A wound

woonde (1x), wound (70x),

wounde (57x), woundes (26x),

wounds (17x)

wreath, *n.* Something resembling or
 comparable to a twisted or circular band

wrethes (1x)

wrench, *n.* A sudden or sharp twist or
 jerk causing pain or injury to a limb,
 person, etc.

wrinche (1x)

wrest → **wrist**

wring, *v.* To press, squeeze, or twist so
 as to drain or make dry

wring (5×), wringe (2×), wrought (2×)

wrist, *n.* Wrist

wrest (2×), wrist (1×)

write, *v.* To write

written (4×)

write, *n.* The action of writing

writing (1×)

wrought → **wring**

wunble → **wamble**

wunder → **wonder**

wyde → **wide**

wyld(e) → **wild**

wyll → **will**

wymble → **wimble**

wyn(e) → **wine**

wynd(e) → **wind**

wynter → **winter**

wytt → **wit**

x

xicorie → **chicory**

y

yard, *n.* A unit of linear measure equal to 16 feet or 5 yards (but varying locally);

The virile member, penis

yarde (8×), yeard (2×), yearde (1×), yerd (2×)

yarrow, *n.* The common name of the herb *Achillea Millefolium*, also called milfoil and nose-bleed

yarow (1×)

ydle → **idle**

year, *n.* Year

year (4×), yeare (2×), yeares (1×),

years (5×), yere (2×), yeres (2×),

yers (1×)

yeard(e) → **yard**

yek(e) → **itch**

yelde → **yield**

yellow, *a.* Yellow

yalew (1×), yealowe (1×), yelew

(1×), yellow (1×), yelow (3×)

yellowness, *n.* The quality or state of being yellow

yealownes (1×)

yerd → **yard**

yet, *b.* Yet; although

yet (9×)

yield, *v.* To give forth from its own substance by a natural process

yelde (2×), yeldithe (1×)

ylnes → **illness**

ymb(er)(re) → **ember**

ynche(s) → **inch**

ynke → **ink**

ynoughe → **enough**

yokethe → **itch**

yolk, *n.* The yellow internal part of an egg, surrounded by the white or

albumen

yolk (8×), yolke (7×), yolkes (3×),
yolks (1×)

young, *a.* Young

yong (1×), young (3×), younge
(1×)

ynyons → **onion**

yron(e) → **iron**

ysop(e)(p) → **hyssop**

ytche → **itch**

yv(i)e → **ivy**



CHAPTER 4

THE COMPILATION OF HISTORICAL CORPORA

A corpus is a remarkable thing, not so much because it is a collection of language text, but because of the properties that it acquires if it is well-designed and carefully-constructed (Sinclair 2005: 1)

The present chapter focuses on corpus linguistics as a branch of linguistics. Thus, the term ‘corpus’ is defined and the corpus linguistics methodology is described.⁸⁷ After that, the contribution of corpora to historical linguistics is evaluated and the main issues in the compilation of corpora for historical linguistics are analysed. Finally, the chapter offers a detailed description of the process by which H135 has been processed and turned into a normalised and POS-tagged early Modern English corpus, which will ultimately become part of *The Málaga Corpus of Early Modern English Scientific Prose*.

4.1. Corpus linguistics

Corpus linguistics is the study of language “based on examples of ‘real life’ language use” (McEnery and Wilson 1996: 1).⁸⁸ These examples of real life language are contained in corpora, which are collections of texts with which

⁸⁷ Even though field work on corpora has been carried out in many countries and languages, the present chapter is exclusively concerned with English corpus linguistics.

⁸⁸ According to Johansson, the label corpus linguistics was first “found in the title of a collection of papers from the ‘Conference on the Use of Computer Corpora in English Language Research’, an early ICAME conference held in Nijmegen in 1983: *Corpus Linguistics: Recent Developments in the Use of Computer Corpora in English Language Research* (2008: 34). In the present dissertation, the term is employed to refer to any linguistic research based on corpus, both before and after this date.

linguistic analysis can be performed (Meyer 2002: xi; Meyer 2008: 1).⁸⁹ Thus, many different studies can be carried out under the umbrella of corpus linguistics, and they certainly share some goals and characteristics (Biber, Conrad and Reppen 1998: 4):

1. They are empirical, analysing the actual patterns of use in natural texts.
2. They are based on the analysis of a large and principled collection of natural texts, known as a 'corpus', which is evaluated for the extent to which it represents a target domain or language.
3. They make extensive use of computers for analysis, employing both automatic and interactive techniques.
4. They depend on both quantitative and qualitative analytical techniques.

Given this, corpus linguistics not only embodies the transition from the linguist's mental image of what language may be to its actual realization, but also a transversal methodology that can be applied to different fields within linguistics, i.e. lexicography, morphology, sociolinguistics or historical linguistics, to name but a few (Leech 1992: 105). In addition, the rise of corpus linguistics constitutes a shift of focus, from competence to performance, where the quantitative aspects become very significant when analysing any aspect of language (Tognini-Bonelli 2010: 14–15). This shift of focus is even noticeable not only in the discipline of

⁸⁹ Francis defined the linguistic corpus as "a collection of texts assumed to be representative of a given language, dialect or other subset of a language, to be used for linguistic analysis" (1982: 7). Under the umbrella term corpora, Kennedy makes a subdivision: 1) pre-electronic corpora, a collection of texts that had to be manually analysed, e.g. the 18th-century King James version of the Bible by Alexander Cruden; and 2) electronic corpora, the product of the computer revolution, with the Brown Corpus as the first attempt in the 1960s (1998: 13–19; see also Meyer 2008: 1).

linguistics as a whole, but also in the career path of linguists, as Sinclair pointed out

I have no longer any confidence in the ability of a human being to invent sentences which display the same patterns of meaning that are to be found in naturally occurring sentences. This has not always been my position; thirty or more years ago I published an English grammar which illustrated its points with almost entirely made-up sentences. I would not do that today. What is more, I believe that most linguists share my misgivings, and it is easy to find subjective evidence in support of this position (2002: 41).

Corpus linguistics originated out of the need of linguists for pieces of real language that allowed them to draw conclusions on the features and variation in the use of English. According to Leech, early biblical and literary scholars provided the background for the work to be done and it was structuralists who became the “forerunners of corpora not only in the sense of data gathering but in terms of the commitment to putting real language data at the core of what linguistics study” (1992: 105). Corpus linguistics is nowadays associated with concordance software of web-based corpora in which the linguist is to make searches in order to retrieve linguistic information. Nevertheless, the beginnings of this branch of linguistics were not this simple, as the ground-breakers in the field created small corpora if compared to the time they had to spend in the compilation process.⁹⁰

⁹⁰ In this vein, Leech highlighted the obvious advantages of computer corpora over pre-computational corpora as “the computer’s ability to search, retrieve, sort and calculate the contents of vast corpora of text [...] gives us the ability to *comprehend*, and to *account for*, the contents of such corpora in a way which was not dreamed of in the pre-computational era of corpus linguistics” (1992: 106).

A distinction must be made between pre-electronic corpora and electronic corpora.⁹¹ While the former “consisted of a text or texts that served as the basis of a particular project, and had to be analysed through often time-consuming and tedious manual analysis”; the latter are “a consequence of the computer revolution, beginning with the first computer corpora in the 1960s, such as the Brown Corpus (Francis and Kučera 1964) and continuing to the present time” (Meyer 2008: 1; see also Johansson 2008). When it comes to electronic corpora, its development and distribution could be sketched in three stages or generations (Tognini-Bonelli and Sinclair 2006: 208; see also Tognini-Bonelli 2001):

1. 1960-1980: learning how to build and maintain corpora of up to a million words; no material available in electronic form, so everything had to be manually transcribed.
2. 1980-2000:
 1. 1980s: the decade of the scanner, where even with the early scanners a target of twenty million words becomes realistic.
 2. 1990s: texts become available in electronic format and this allows for the compilation of bigger corpora.
3. 2000s: large amounts of text start to be produced directly in electronic format on the internet, wherefrom they can be exported and turned into a research corpus.

In spite of their many applications in linguistic research, corpus linguistics became at first unpopular and was neglected. In this context, the first attempts to build

⁹¹ McEnery and Wilson argue that, “while not identifying themselves with the term corpus linguistics, field linguists [...] and later linguists of the structuralist tradition all used a basic methodology that we can undoubtedly call corpus-based” (1996: 2-3; see also Francis 1992).

corpora for corpus linguistics were particularly significant not only because they constituted the first machine-readable corpora, but also because they were compiled “in the face of massive indifference if not outright hostility from those who espoused the conventional wisdom of the new and increasingly dominant paradigm in US linguistics led by Noam Chomsky” (Kennedy 1998: 23). Within this first-generation corpora, three of them deserve special mention: *The Brown Corpus*, *the Lancaster-Oslo-Bergen Corpus (LOB)* and *The Survey of Spoken English* and *the London-Lund Corpus* (Johansson 2008: 35–40).

After this first computer-based attempt, technology improved and computers became more powerful, cheaper and user-friendly, contributing to a higher number of resources available and scholars using them (Johansson 2008: 33; see also McCarthy and O’Keeffe 2010: 5; Rayson 2015: 32). Interestingly enough, the influence of the computer in corpus linguistics allowed for the quantification of language, which “led to scientifically interesting generalizations and [...] helped renew or strengthen links between linguistic description and various applications” (Kennedy 1998: 5). In the course of the 1970s and the 1980s, the quantity of corpora grew considerably and, more importantly, these new corpora were much larger.⁹² In addition, these corpora not only grew in quantity and extension, but in diversity. Thus, corpus linguists started to compile corpora of special text types, different varieties of English, child language or historical texts (see below), among others (Johansson 2008: 40).

In terms of form and structure, Lüdeling and Kytö argue that, although a simple collection of texts, a corpus may be thought of in terms of different aspects, such as “machine-readable form, sampling and representativeness, finite size, and

⁹² By the end of the 1970s, Bergenholtz and Schaefer (1979: 325–329) listed 3 English and 14 German from 200,000 and 5 million words. Ten years later, in their survey of electronic corpora, Taylor, Leech and Fligelstone (1991: 319–354) listed 36 corpora, including the Birmingham Corpus with c. 20 million words (Johansson 2008: 40).

the idea that a corpus constitutes a standard reference for the language variety it represents” (2008: v; Curzan and Palmer 2006: 18).

One of the biggest concerns among the users of corpora is the representativeness of those corpora with regard to the variety they represent, that is, the reliability of the linguistic findings. Davies (2011: 66) argues that “no corpus is a 100% mirror of what we encounter in real life” and puts as an example the compilation of a corpus of popular magazines:

There are many different factors that we could or should consider in creating a corpus of, for instance, popular magazines: sub-genre of the magazine (sports, religion, finance, parenting, etc.), specific subject matter of the article, the author’s gender, age and place of origin, the target audience, the year of publication, and so on. And each of these can be subdivided in turn. For example, with sub-genre of ‘sports magazines’, we can have topics like football, basketball, and golf. And within basketball, we can have a focus on individual players, teams, strategy, etc. This can go on ad infinitum. And we can always come back to the relationship of the corpus to the ‘real world’. Do more people read articles on basketball than golf, or are there more articles published on individual players than on strategy? (2011: 66-77).

This excerpt exemplifies many of the problems that corpus compilers face when they have to decide what to include and what not to include in a particular corpus. In the case of popular magazines, the first issue would be ‘genre’: how many genres should be included? Why? After that, sub-genres have to be considered and, again, the compilers will have to decide which of them to include.

There are, nevertheless, some techniques which help bridge these shortcomings. First of all, the corpus compiler must know that the corpus will be a sample of a language variety and, therefore, the limits of the variety which will be studied must be stated, i.e. a determined period of time, a particular genre or register, etc. After that, the source texts must be selected (taken from a particular

library, periodicals, etc.). The last factor to be taken into account is the length of the samples. Re-taking Davies' example, for the corpus of popular magazines to be representative of that variety, all genres and sub-genres must have roughly the same word-length,⁹³ writers must be balanced (in terms of age, gender, region, social class, etc.), the samples belonging to each diachronic period (if any) must be in equilibrium, etc. In doing this, the corpus compiler will be able to draw reliable conclusions that will not depend on the composition of the corpus but will be representative of the variety under study.

4.2. Corpus linguistics and historical linguistics

Historical linguistics is the branch of linguistics that focuses on language change throughout time. According to Campbell, advances in the field may serve two main purposes. On the one hand, knowing how language has changed over time might help better understand how that particular language works. On the other, “historical linguistics findings may be helpful to solve historical issues which are far beyond linguistics” (2004: 1). In order to achieve this, historical corpus linguistics makes use of historical corpora, which are corpora especially designed to represent a particular stage in the history of English so that linguistic change can be assessed (Claridge 2008: 242).⁹⁴

Within all the branches in linguistics, historical linguistics has always been concerned with the use of old written sources and, as a consequence, the new methodology based on corpora did not dramatically change the way in which historical linguists had been working (Johansson 1995: 22). Thus, what did

⁹³ Biber (1993: 243–246) argued that small samples are adequate for the study of frequent items in a particular language. Less common features, however, require larger samples so that they are properly represented in the corpus.

⁹⁴ In this vein, Claridge argues that “a historical corpus concerns periods before the present-day language, which may be taken to end roughly thirty to forty years (one generation) before the present: in other words, any corpus compiled in or around 2000 that goes back beyond ca. 1960/1970 can be called historical (Claridge 2008: 242).

change was the number of available sources and, more importantly, the quality and diversity of those sources, which no doubt enhanced the potential of historical linguistics as: 1) computer-based historical corpora offer the linguist large amounts of data as well as tools for dealing with it (word-counts, frequencies, statistics, etc.); 2) statistical analyses contribute to a better understanding of the way in which linguistic change takes place, either supporting or refuting previous linguistic theories; 3) historical linguistics has adopted more functional approaches, which assess how language structure is affected by language use; and 4) less canonical texts have been made available in corpus format so that genres or text types that had not been paid the attention they deserve can now be used as sources of evidence for linguistic analyses (Curzan 2008: 1091).

While in the past linguists approached variation simply stating how a particular form was and how it evolved, the corpus linguist is now able to calculate the frequencies of each competing form in order to determine, for example, whether or not historical fluctuation has taken place (Rissanen 2008; see also Facchinetti and Rissanen 2006: 7).⁹⁵ These two approaches, namely qualitative and quantitative, respectively, should not be considered incompatible as, even though they constitute different perspectives on corpus data, they can perfectly complement each other for the sake of a better analysis of a particular linguistic feature. The relationship between these two approaches must be, therefore, symbiotic, as any given quantitative study should have qualitative foundations and, at the same time, the information by way of numbers provided by a quantitative analysis will no doubt enrich such study (Hilpert and Gries 2016: 40).

⁹⁵ According to Rissanen (2008: 58), “in the past, descriptions of change in language were often based on information derived from dictionaries and historical grammars and described by the simple formula $A > B$, [which] does not, however, tell the whole truth about the real-time or apparent-time change of linguistic features within a large community.”

If qualitative and quantitative approaches are applied to historical linguistics, the former would be suitable for analysing a linguistic feature in a particular historical period, whereas the latter would allow the historical linguist to extrapolate those data and compare them to another historical period. In this way, historical linguistics would not only address the analysis and description of linguistic phenomena but also it would assess the patterns of evolution that those phenomena have had throughout history.

Among the corpora specifically designed for diachronic research, the *Helsinki Corpus* was the first attempt. It was compiled at the University of Helsinki between 1984 and 1991 and it consists of 400 samples of continuous text from Old English to Early Modern English amounting up to 1.5 million words (Kytö 1991; Kytö and Rissanen 1992):

The main aim of the Corpus is to serve as a database for the study of the development of English morphology, syntax and vocabulary. The texts were selected in the spirit of sociohistorical variation analysis: they should give extensive evidence of varied types, modes and levels of linguistic expression. An attempt has been made to take the samples from good editions and to reproduce their spelling as accurately as possible. The extracts vary from 2,500 to some 20,000 words of continuous text; shorter texts are included *in toto*. No grammatical tagging can be offered at present, but parameter codings introducing each text give information on the author, type of text and discourse situation. (Kytö and Rissanen 1992: 7).

After this first attempt, other corpora came out accomplishing different purposes in linguistic research. Thus, for instance, *ARCHER* (*A Representative Corpus of Historical English Registers*) enlarged the covered period from the mid-seventeenth century to the 1990s; *CEEC* (*Corpus of Early English Correspondence*) is useful for sociolinguistic research in late Middle English and early Modern English,

providing the informants' gender, age and social background;⁹⁶ *MEMT* (*Middle English Medical Texts*) and *EMEMT* (*Early Modern English Medical Texts*) are valuable for the study of genre variation within medical writing in those periods;⁹⁷ the *ZEN* (*Zurich English Newspaper Corpus*) offers evidence for newspaper language in the period 1671–1791; the *Lampeter Corpus* provides seventeenth- and eighteenth-century argumentative texts, etc. (Rissanen 2008: 59–60).⁹⁸

More recently, a second generation of corpora has appeared in corpus linguistics. This second generation is characterised by a massive compilation of written texts belonging to different periods in the history of English. Some of these projects deserve special mention: the *Hansard Corpus* (1.6 billion words) containing the speeches in the British Parliament in the period 1803–2005; the *Early English Books Online* (ca. 400 million words) that offers electronic editions of early printed books in the period 1470s–1690s; the *Corpus of Historical American English* (ca. 400 million words) which provides texts belonging to different genres within American English in the period 1810s–2000s; and the *Old*

⁹⁶ According to Curzan (2008: 1098), “the further back in time one goes, the less evidence has survived [...] and the CEEC is so valuable because it compiles many of the available correspondence documents, beginning near the end of the Middle English period through the nineteenth century.”

⁹⁷ Even though these two corpora constituted a ground-breaking resource for the study of early English Medical writing, *The Málaga Corpus of Early English Medical Writing* has been working for the last ten years in order to provide linguists with a Middle and an early Modern English corpus of scientific writing composed of newly edited manuscripts which, in addition, allow for lemma- and POS-based searches.

⁹⁸ In addition to the abovementioned corpora, dictionary projects have also benefited from the development of corpus linguistics, i.e. *The Dictionary of Old English Corpus* and *The Middle English Compendium* (Rissanen 2008: 60).

Bailey Corpus (ca. 14 million words), composed of the proceedings of the Old Bailey, London's criminal court, published between 1674 and 1913.⁹⁹

4.3. The compilation of historical corpora

The compilation of a corpus is a process that may be divided into two different stages: 1) transcription, scanning or sampling from online sources; and 2) annotation, by which the corpus texts are equipped with documentation that identify textual and linguistic characteristics (this may be accomplished by means of both manual and automatic methods) (Rayson 2015: 33).¹⁰⁰ This first stage, however, could be divided in three subsequent phases, namely the design of the corpus (in terms of genre, text type, etc.), the obtention of the material and the transcription of the texts, which can be carried out manually or automatically (OCR).¹⁰¹

In the present section, I am concerned with the methodology behind the compilation of historical corpora. For the purpose, Section 4.3.1. analyses their restrictions; Section 4.3.2. assesses the processing of historical texts; Section 4.3.3. comments on the annotation procedure; and finally, Section 4.3.4 explains the process by means of which the edition of H135 became part of *The Málaga Corpus of Early Modern English Scientific Prose*.

4.3.1. Restrictions of historical corpora

Given the nature of the material necessary for the compilation of historical corpora, they present a series of added difficulties that have traditionally influenced the length of these corpora until recent times. In this vein, Claridge

⁹⁹ See Davies (2015) for a detailed analysis on the pros and cons of working with large corpora as opposed to smaller corpora.

¹⁰⁰ Kennedy (1998: 70) distinguishes three phases in the creation of a corpus: corpus design, text collection or capture and text encoding or mark-up. Adolphs (2008: 21), in turn, lists three slightly different stages: data collection, annotation and mark-up.

¹⁰¹ Optical Character Recognition.

(2008: 245) outlined four reasons for such a length restriction:

1. The manual process of compilation.
2. The availability of suitable material not only in a particular historical period but also in any specific genre or register.
3. The accessibility of material.
4. Copyright.

Regarding the manual process of compilation of historical corpora, the worst scenario derives from the manuscript sources, which have to be manually transcribed. Easier (and less time-consuming) options are the choice of (early) printed versions of the texts that will compose the corpus (see Section 3.3.2.). Davies (2011: 68) points out that the main complication when compiling a historical corpus was the scarcity (or no existence at all; or no available source) of particular genres at determined points in the history of a language. This is the case of medical writing throughout the history of English, where the written sources are scarce in Old and early Middle English and they are prolific from late Middle English onwards. In addition to this, different subgenres in medical writing are not evenly distributed in the different periods of the history of English, a fact that casts doubt on the representativeness of those sources in a particular historical period.

The accessibility of the material can also be a problem in the compilation process. Thus, while (early) printed editions are easy to work with, the processing of manuscripts is more complicated, as corpus compilers will have to move to the libraries in which these manuscripts are housed. This not only affects the initial budget but also the time schedule for the completion of the corpus. In addition, if (early) printed editions are used they may be copyrighted and the subsequent corpus distribution can be problematic (see Section 3.3.2.).

Compiling a spoken historical corpus is not an easy enterprise, and this

has precisely been another difficulty for historical corpus linguists, who have tried to bridge this gap by compiling speech-related corpora, i.e. drama, legal proceedings or even private letters.¹⁰² This procedure is based on the fact that even though every single source comes to us through written records, some of them were created to be spoken (i.e. drama) or were transcribed speech (i.e. legal proceedings). In this vein, Hundt argues that “some text types (for example personal letters, depositions from criminal investigations, drama or fictional dialogue) are conceptually closer to the spoken end of the text-speech cline” (2008: 169).

In sociolinguistic grounds, corpus linguistics also presents some drawbacks, as it is almost impossible to reconstruct the societies of the past. Moreover, the high levels of illiteracy and the male-dominated societal structure makes it difficult to get a whole picture of all speakers using, for instance, Middle English.¹⁰³ Particularly interesting is the role of women as the leaders of linguistic change as they rarely received language instruction, thus producing forms that are closer to everyday language (Claridge 2008: 249). This is very much connected to the large amount of anonymous texts throughout the history of English, which obviously shortens the potentiality of those sources, as no social background can

¹⁰² The use of letters is appropriate because “they are as close to speech as non-fictional historical texts can possibly be and therefore cast light on the history of natural language” (Elspass 2012: 156). Additionally, Conde-Silvestre and Calle-Martín point out that the use of private letters is of vital importance for sociolinguistic analyses, as they “allow the reconstruction of psychobiographical information about their authors and addressees and this favours a reproduction of the sociolinguistic variables that can be connected with linguistic production: age, gender, education, etc.” (2015: 62). However, it must be noted that sometimes it is difficult to know if these letters were written by the real author or a professional secretary/scribe.

¹⁰³ In the *Corpus of Early English Correspondence* (CEEC), the letters were written by 677 known informants, of which only a fifth were women (Nurmi 1998).

be accessed.¹⁰⁴

4.3.2. Processing historical texts

The process of creating a historical corpus is not a simple one, and the linguist may have to make some decisions that will certainly have an impact on the final product: a sample corpus that is representative of the population to which it belongs. The first decision must be, therefore, what to edit, and thus the linguist stands in front of three different pathways: 1) to edit manuscripts of a pre-print culture; 2) to edit manuscripts in a print culture; and 3) to edit early printed texts or editions (Claridge 2008: 250).¹⁰⁵

The third one obviously has some technical advantages. Consequently, already-printed editions are easily available, the editing work has already been done, and they may be automatically scanned (by means of OCR and the subsequent manual post-edition) or manually transcribed (at least easier than a manuscript). Another advantage is their good state of preservation as opposed to the state of many manuscripts. Additionally, they may also present some disadvantages. On the one hand, they are often carried out by historians instead of linguists, the former being mainly interested in the contents while the latter would also take the form into account.¹⁰⁶ On the other, the decisions made during the edition process may not be well documented and elements such as spelling

¹⁰⁴ In such case, style or rhetorical features, among other, could certainly help determine the social background of the writer.

¹⁰⁵ Claridge proposes a distinction between originals and modern editions and, in the former case, with the challenges presented by the form of early texts (2008: 250).

¹⁰⁶ It would not be fair to criticise historical editors for not having documented their decisions during the editing process or for the lack of faithfulness with the original manuscript, as their intention was never to provide a source for linguistic research but for the historical aspects of the text. Yet, these editions could still be used by linguists if they are aware of their limitations, i.e. the differences that they may present if compared with the original (for a discussion on this, see Kytö and Walker 2003: 241).

variation could have been omitted. Finally, these editions may be copyrighted and the distribution of the resultant corpus could be problematic (Claridge 2008: 250).

From a purely linguistic viewpoint, however, the preferred option would be to work with original manuscripts. Consequently, it would be linguists who would be editing the manuscripts and, in this way, every single decision made in relation to the editorial process would be duly documented. Working with manuscripts of course supposes some problems. First, manuscripts are scattered around the world and, in order to get access to them, more funding is needed if compared to working with an electronic edition at home.¹⁰⁷ Second, it may not be a viable option for large-scale corpus projects, as the transcription of manuscripts is a time-consuming task.¹⁰⁸ In order to avoid this shortcoming, Kytö and Walker proposed that “when an early print is readily available and the copy of reasonable quality, this is the best text format for corpus compilers to use [...] but compilers should make the corpus users aware of the inherent ‘dangers’ in the corpus texts” (2003: 241).¹⁰⁹

¹⁰⁷ This limitation was solved by CLEFT (*Cambio Lingüístico y Edición Filológica de Textos*) research team when compiling the *Málaga Corpus of Early English Scientific Prose*. In order to save resources and time, the team decided to have the manuscripts photographed by the archivists working in the libraries and, afterwards, the team transcribed the texts with those high-resolution images (see Section 4.3.4. for an account of the research project).

¹⁰⁸ See for instance, the approach taken by the *Early English Books Online* (EEBO), where three stages have been designed: 1) texts are manually transcribed by two different linguists; 2) both versions are compared; and 3) a third editor prepares the final version that is based on the two previous ones (Rayson 2015: 37).

¹⁰⁹ Kytö and Walker also recommend that even though an early printed edition is selected for the corpus, the corpus user should be informed of the existence of available manuscript versions (if any) against which the edition can be checked (2003: 241).

4.3.3. Corpus annotation

After corpus compilation, the next task would be data annotation. The nature of corpus annotation is the addition of information to the corpus so as to provide it with relevant information for linguistic research. This information is known as markup and it constitutes “all the information in a document other than the ‘contents’ of the document itself, viewed as a stream of characters” (Sperberg-McQueen 1991: 35).

Annotation enhances the potentialities of the corpus, where three different layers could be distinguished: ‘structural’ markup,¹¹⁰ ‘part-of-speech’ markup and ‘grammatical’ markup (Meyer 2004: 82).¹¹¹ Rayson, in turn, distinguishes among morphological, lexical, syntactic, semantic, pragmatic, stylistic or discoursal annotation (2015: 38). This additional information will improve the uses of the corpus providing the user with information that is not physically in the text, but that is directly related to it, i.e. date of composition, background of the informants, structure of the text, part-of-speech tags, etc.

When it comes to the kind of information that may be attached to a particular text, Claridge identifies two main branches: (i) on the text: title, publication format, register, text type/genre, content (library keyword style), style (formal/informal), medium (written/spoken), language use (prose/verse; dialect;

¹¹⁰ In relation to the different nature of structural markups, Burnard (1995) noted three different types of tagsets: ‘core tagsets’ (associated with file headers or paragraph divisions, available for insertion in any document); ‘base tagsets’ (associated with particular kinds of texts, i.e. verse, drama, etc.); and ‘additional tagsets’.

¹¹¹ Reppen distinguishes two kinds of mark-up: document mark-up and annotations. The former refers to markings such as HTML codes that indicate the structure (paragraphs, sentences, etc.) and format (fonts, etc.) of the text (2010: 35). The latter cover a wider range of options, where part-of-speech (POS) tags stand out as the most frequent. In this vein, Claridge understands annotation as “the provision of text headers, textual markup for capturing layout and other surface properties, and grammatical annotation” (2008: 252).

foreign languages, etc.), date(s) (if composition and copy diverge), original/edition used for the corpus; and (ii) on the author: age, gender, social rank/class, parentage, education, profession(s), residence, dialect, type of author-recipient relationship (if interactive) (2008: 253).

Sinclair makes a distinction between ‘markup’ and ‘annotation’. While the former “is the process of recording these additional pieces of information by making notes interspersed in the alphanumeric string” (i.e. bold script, layout of the text), the latter may use the same conventions as ‘markup’ but it “encodes information which is not directly recoverable from the original text, but is added by a researcher” (2002: 48).¹¹²

Markup, therefore, allows for the reconstruction of the text as it was originally, a characteristic that becomes especially important not only for describing the features of any given text but also to represent features related to speech (i.e. overlapping speech).¹¹³ In the particular case of historical corpora, markup helps indicate features such as abbreviations, layout of the text or insertions, among others. In order to exemplify how relevant this can be in the compilation of historical corpora, (1) provides an image of H135 (f. 97r); (2) represents its semi-diplomatic transcription; (3) shows a transcription with no markup; and (4) offers the text with its corresponding markup.

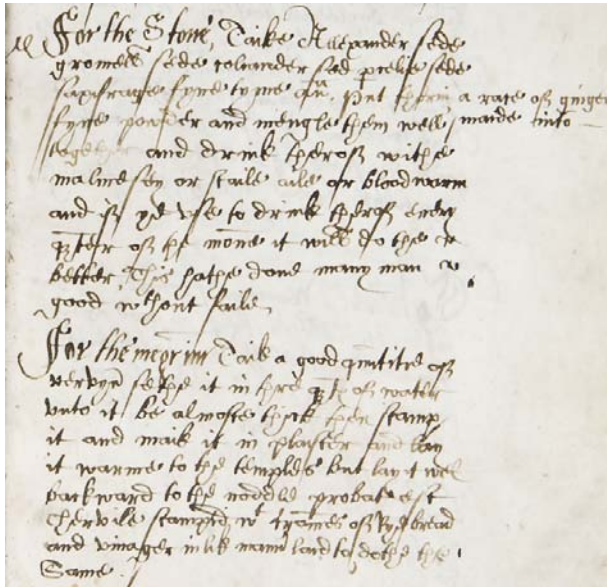
As observed, (2) represents the original witness in all aspects, namely the division of paragraphs and lines, the script format (title of recipes in bold script), abbreviations (expanded in italics) and marginalia. In (3), in turn, the corpus user does not have access to anything but the text, while the layout, among other

¹¹² Sinclair, however, maintains that each information in a corpus other than the plain text should be optional as 1) most researches require just that; and 2) most researches will use just a portion of the available annotation data (2002: 50).

¹¹³ In this vein, Sperberg-McQueen and Burnard (1994) argue that this markup is purely descriptive insofar as it just provides tags to categorise different parts within a document.

things, is lost. Finally, (4) represents an annotated version of the text, in which all the information represented in (2) is included. The main difference between (2) and (4) is that the information (by means of italics and text layout) in (2) is lost in case the text is processed with a software, be it a tagger, parser, etc., whereas the information in (4) does not disappear as it is not marked by way of format, but it is part of the text.¹¹⁴ This becomes especially important when working with historical corpora, as manuscripts have a surface appearance that is often difficult to accommodate to the corpus version of those texts (compare (1) with (3)).

(1)



(2) **For the Stone, Taike Alexander sede**
gromell sede coliander sed percelie sede
saxifrage fyne tyme an^a. put therin a race of ginger

¹¹⁴ This is achieved by adding tags to the text. These tags appear between angular brackets and have a beginning (<i>) and an end (</i>). Additionally, some tags can be embedded into others, i.e. text in italics within a line. The tags used in (4) are <p> for marking the paragraphs, <l> for the lines, <extMarg> for marginalia in the external margin, for bold script, <i> for italics and <supScr> for superscript letters.

fyne powder and mengle them well maide into
together and drink therof withe
malmesey or staile aile or bloodwarm
and if ye vse to drink therof euery
quarter of the monne it will do the
better, This hathe done many man
good wi^thout failie

For the megrim Taik a good quantitie of
vervyn sethe it in thre *quarts* of water
vnto it be almoste thick then stamp
it and maik it in plaister and lay
it warme to the temples but lay it wel
backward to the noddle probat est
chervile stampid with *crammes* of Rye bread
and vinager in lik *manner* laid to dothe the
same./

- (3) For the Stone, Taike Allexander sede gromell sede colliander sed
percelie sede saxifrage fyne tyme ana. put therin a race of ginger
maide into fyne powder and mengle them well together and drink
therof with malmesey or staile aile or bloodwarm and if ye vse to
drink therof euery quarter of the monne it will do the better, This
hathe done many man good without failie For the megrim Taik
a good quantitie of vervyn sethe it in thre quarts of water vnto it
be almoste thick then stamp it and maik it in plaister and lay it
warme to the temples but lay it wel backward to the noddle probat
est chervile stampid with *crammes* of Rye bread and vinager in lik
manner laid to dothe the same./

- (4) <manuscript>MS Hunter 135</manuscript>
<library>Glasgow, Glasgow University Library</library>
<collection>Hunterian Collection</collection>
<date>mid-15th century</date>

<author>unknown</author>

<genre>medical recipes</genre>

<text>

<p>

<l>For the Stone Taike Allexander sede</l>
 <l>gromell sede colliander sed p<i>er</i>/i>celie sede</l>
 <l>saxifrage fyne tyme an<i>a</i>/i>. put therin</l>
 <extMarg>a race of ginger maide into</extMarg> <l>fyne
 powder and mengle them well</l> <l>together and drink
 therof with</l> <l>malmesey or staile aile or
 bloodwarm</l> <l>and if ye vse to drink therof euery</>
 <l>q<i>ar</i>/i>ter of the mo<i>n</i>/i>ne it will do the</l>
 <l>better, This hathe done many man</l> <l>good
 w<i>i</i><supScr>t</supScr>hout failie,</l>

</p>

<p>

<l>For the megrim Taik a good quantitie of</l>
 <l>vervyn sethe it in thre q<i>uar</i>/i>ts of water</l>
 <l>vnto it be almoste thick then stamp</l> <l>it and
 maik it in plaister and lay</l> <l>it warme to the temples
 but lay it wel</l> <l>backward to the noddle probat
 est</l> <l>chervile stampid w<i>i</i><supScr>t</supScr> cra<i>m</i>/i>mes
 of Rye bread</l> <l>and vinager in lik mann<i>er</i>/i> laid
 to dothe the</l> <l>same.</l>

</p>

</text>

In order to provide corpus material with this kind of relevant information, a standard system has been implemented that allows for the processing of texts without the need of a particular software. This system is known as Standard Generalized Markup Language (SGML), and its innovative character lies in the fact that it is not a limited system, but a “metalanguage that provides a mechanism

for describing the structure of electronic documents” (Meyer 2004: 82).¹¹⁵ The first major attempt to this was the Text Encoding Initiative (TEI), a “consortium of institutions and projects concerned with the development and maintenance of the TEI standard that is available as a set of guidelines with corresponding document grammars” (Lehmberg and Wörner 2008: 486).¹¹⁶ Sperberg-McQueen defined Text Encoding Initiative as

a set of tags defined in the manner prescribed by the Standard Generalized Markup Language (SGML). SGML is defined by an international standard and thus has the intrinsic advantage of public accessibility over alternative proprietary systems. SGML is designed to ensure that tag sets defined as it specifies will be independent of peculiarities of individual computer systems and can with some work be made usable for a wide variety of different applications. The TEI is using SGML because it provides a better basis than any other now available for the creation of portable, reusable, system-independent, application-independent electronic texts (1991: 35).

SGML was developed by Goldfarb and it satisfies, following Vanhoutte, “seven requirements for an encoding standard” (2004: 10):

1. Comprehensiveness.
2. Simplicity.
3. Documents be processable by software of moderate complexity.
4. Standard not dependent on any particular characteristic set or text-entry devise.

¹¹⁵ No markup language with a finite vocabulary can be complete for a) there is no finite set of textual features worth marking; b) there is no finite set of texts to be tagged; and c) there is no finite set of uses to which texts may be put (Sperberg-McQueen 1991: 36).

¹¹⁶ According to Lehmberg and Wörner, the formation of the TEI was a result of the Association for Computers and the Humanities’ Vassar Conference in 1987 (2008: 486).

5. Standard not geared to any particular analytic program or printing system.
6. Standard describing text in editable form.
7. Standard allowing the interchange of encoded texts across communication networks.

A new markup system has emerged recently: XML. It is a restricted version of SGML and its main advantage is “its ability to be used on web pages” (Meyer 2004: 84). This new system is nowadays extensively used by researchers as the web is becoming the medium of corpora, certainly facilitating their distribution.

The implications are, therefore, that this standard was to provide scholars with a metalanguage that not only would allow for the description of the text they were working with, but also for the freedom to enlarge this language whenever they needed. Besides, this metalanguage could be differently shaped according to the needs of a particular scholar. Thus, if I am editing a sixteenth-century scientific manuscript, I may be interested in a set of features that would be of little or no interest for a scholar who is transcribing Present-day English text messages. More importantly, the most striking characteristic of this standard lies in the fact that it has no limit since each scholar may add the elements that he/she considers relevant, all of which will be easily understood by the rest of the community.

4.3.4. *The Málaga Corpus of Early Modern English Scientific Prose*

The *Málaga Corpus of Early Modern English Scientific Prose*¹¹⁷ is a research project based at the University of Málaga, in collaboration with the Universities of Murcia, Jaen, Oviedo, Glasgow, Oslo and Adam Mickiewicz. The project’s *raison d’être* could be defined in terms of a twofold objective: 1) the semi-diplomatic

¹¹⁷ This research project is funded by the Spanish Ministry of Science and Innovation (grant number FFI2014-57963-P) and by the Autonomous Government of Andalusia (grant number P11-HUM7597). It can be accessed at <<http://modernmss.uma.es>>.

transcription of hitherto unedited early Modern English scientific manuscripts and the design of electronic editions in which the transcription appears together with the high-resolution images of the witness; and 2) the compilation of a normalised and POS-tagged corpus for linguistic research.

Regarding the composition of the corpus, the research team pursues the compilation of a representative corpus of the main branches of medical writing in early English with a total of 1,000,000 words, i.e. theoretical treatises, surgical treatises and remedies (see Section 1.3.). For the purpose, the following manuscripts, on which the research team is already working, have been selected for the project so far:

Glasgow University Library (Hunter Collection):

- MS Hunter 43 (Medical recipes; The Secrets and Experiments of Mathewe Lucatellye).
- MS Hunter 64 (Medical recipes).
- MS Hunter 92 (Treatise on the Anatomy of the Eye).
- MS Hunter 95 (Medical recipes).
- MS Hunter 135 (Treatise on Surgery; medical recipes).
- MS Hunter 303 (Jean Liébault's Treatise on the Diseases of Women).
- MS Hunter 487 (Medical recipes)

University of Manchester (Rylands Collection):

- MS Rylands 1310 (Medical recipes).

Wellcome Library (London):

- MS Wellcome 373 (Jane Jackson's medical recipes).
- MS Wellcome 762 (Medical recipes).
- MS Wellcome 6812 (Medical recipes).

Table 4.1. Manuscripts in The Málaga Corpus of Early English Scientific Prose (2017)

The object of study in the present PhD dissertation, H135, is one of the manuscripts included in the corpus and this section accounts for the procedure by which the edition of the manuscript was first normalised and then POS-tagged in order to become an original resource for linguistic research.

4.3.4.1. Spelling normalisation (VARD)

It has been said above that one of the main shortcomings in the compilation of historical corpora is spelling variation. As stated in chapter 2, the palaeographic analysis has demonstrated that H135 is likely to have been written during the first half of the sixteenth century. In terms of spelling, texts from the late sixteenth century become more familiar to Present-day English speakers due to the standardisation of punctuation and the emergence of the ‘one word one spelling’ principle. Additionally, this evolution took place first in the public domain, private writing being more reluctant to the standardisation (Lass 1999: 10).

The amount of spelling variation within Early Modern English text is due to many different factors, such as adding and removing letters for the justification of lines and the influence of local dialect, but mainly because there were no standard spelling rules and no notion of the importance of a single spelling to represent each word, with individual scribes, authors, editors and printing houses having their own spelling preferences (Vallins and Scragg, 1965: 63).

Linguists often find that most linguistic tools treat the different orthographic variants of a word as separate lemmas (e.g. *runing*, *runinge*, *running*, *runninge*, etc.) and this leads to non-accurate descriptions of language.¹¹⁸ Being aware of this,

¹¹⁸ According to Rayson et al. (2007: 2; see also Baron and Rayson 2008), “this means that any automated tagging program will fail utterly, as such programs rely [...] on matching words against lexicons. Even regularised editions of Early Modern English texts present potential problems for analysis, such as morphological variants (e.g. ‘tellest’, ‘telletth’), grammatical variants (e.g. ‘ye’, ‘thou’, ‘thine’), orthographic oddities (e.g. ‘wing’d’ instead of ‘winged’, the lack of apostrophe for the s-genitive, capitalisation practices), and archaic/obsolete forms (e.g. ‘becalmed’).” As a

linguists have to manually amend the errors made by the tool, which can be either relatively easy for studies in small corpora or just exhausting in corpora containing some million words. A potential solution would be the standardisation of the early Modern English material so that the modern linguistic tools deal with Present-day English, where minimal spelling variants are found. This would have an impact on the usage of the corpus in two different ways. On the one hand, the problem of spelling variation would be solved and contemporary linguistic tools would be perfectly suitable for diachronic linguistic research. On the other, the original spelling variation would be lost and no trace of the evolution of the English language would be present in the available corpora. Consequently, the applications of the corpus would be narrowed down to just certain features of linguistics (syntax or discourse, for instance), while others would be neglected (spelling variation). In order to provide a solution for this shortcoming, researchers of the Computing Department at the University of Lancaster developed a variant detector (VARD)¹¹⁹, a software that

does not merely offer the user possible ‘suggestions’ for spelling variants (as is the case of MS-Word and Aspell),¹²⁰ but *automatically* regularises variants within a text to their modernised forms so that historical corpora become

consequence of this, “techniques such as *frequency profiles*, *concordancing*, *annotation*, and *collocation extraction* will not perform well with multiple variants of each word type in a corpus” (Pilz et al. 2008: 67).

¹¹⁹ VARD was the result of the PhD dissertation by Alistair Baron (2011), University of Lancaster.

¹²⁰ If MS-Word and Aspell are compared, they correctly modernise from one third to half of variants depending on the text type. However, VARD modernises between 23.2% and 45.2% when MS-Word fails, and MS-Word modernises between 2.9% and 8.3% when VARD fails. The same situation is found when comparing VARD to Aspell, where the former normalises between 16.7% and 33.3% when the latter fails, and the latter normalises between 5.4% and 5.6% when the former fails (Rayson, Archer and Smith 2005: 8-11). Both comparisons prove VARD to be more effective than the other two tools, a fact which is perfectly acceptable as it is designed to process historical texts using historical variant lists.

more amenable to further annotation and analysis (Rayson, Archer and Smith 2005: 2).¹²¹

The reasons behind such a normalisation of spelling lie in the fact that, after the process, annotation softwares designed for Present-day English, such as *Constituent Likelihood Automatic Word-tagging System* (CLAWS), would need little or no adaptation to their use with diachronic corpora. The intervention policy followed by the research team has been the following (Rayson, Archer and Smith 2005: 3–4):

1. Normalise all known variants to their modernised British English equivalents.
2. Post-process morphological variants that can be used legitimately in specialist/dialectal registers.
3. Normalise hyphenated words such as *out-side* and multi-word expressions such as *pallace-yard* that are no longer hyphenated in standard modern English.
4. Normalise ‘open’ lexical units (reflexive pronouns, compound adverbs, etc.) to their hyphenated/closed modern equivalent (*it self* → *itself*, *in deed* → *indeed*, etc.).

For the purpose, the research team manually designed a list of historical variants based on newspapers dating from 1653 to 1654. Additionally, the *OED* and other historical sources were employed to verify and extend this list of variants, which were classified as morphological, orthographic, phonological, fuzzy and problematic. Thus, VARD allows for the manual or automatic normalisation of text(s) and, in order to achieve this, it makes use of two components.

¹²¹ VARD is good for many reasons that will be explained in the present section, but perhaps its best feature is that it is able to normalise early Modern English Spelling while keeping the original form as part of a tag.

The first component offers a set of possible modern spellings for each of the variants in a particular text, which are replaced with an SGML ‘reg’ tag. Interestingly enough, VARD does not correct the spelling, but provides a Present-day English counterpart for every variant within the text, this variant preserved as part of the tag. To achieve this, VARD uses the abovementioned list of variants,¹²² the SoundEx algorithm and letter replacement heuristics. These letter replacements include rules such as replacing final *ck* with *c*, *u* with *v*, *v* with *u*, etc. (Baron and Rayson 2009: 5).¹²³

These possible normalisations are later ranked depending on which methods were used to find them, as well as the Levenshtein distance between the variant and the replacement (Rayson, Archer and Smith 2005: 4; Rayson et al. 2007: 5; Pilz et al. 2008: 67).¹²⁴ Once the software has identified the likely modern equivalents of a variant, a confidence score is calculated by summing the weights with each of the methods employed, and a percentage for each candidate is offered to the user together with the weights for each of the methods used to provide the

¹²² Baron and Rayson argue that this is an extensive and manually created list of variants, allowing for the processing of substantial spelling variation. However, “due to the extensive variety in spelling variant forms it is impossible to include all possible spelling variants in a pre-defined list, and the list was generated solely to deal with EModE spelling variation, the tool would therefore not be of use when dealing with the spelling variation found in other varieties of English” (2008: 6).

¹²³ DICER (Discovery and Investigation of Character Edit Rules) was designed as a complementary tool to VARD. This tool “can process a list of variant and equivalent mappings to compute a set of letter replacement rules for each mapping which can transform the variant from onto its equivalent” (Baron and Rayson 2009: 5).

¹²⁴ The SoundEx algorithm “compresses every English word, no matter how long, into one letter and three digits. The first character of the code is the first letter of the word, and the digits are numbers that indicate the next three consonants in the word” (Orwant, Hietaniemi and Macdonald 1999: 388; Pinto et al. 2012: 49). The Levenshtein Distance “between two strings of not necessarily equal length is the minimum number of character changes, insertions, and deletions required to transform one string into the other” (Aho 1990: 294).

candidates, i.e. known variants (KV), letter rules (LR), phonetic matching (PM) and edit distance (ED) (Baron and Rayson 2008: 8).¹²⁵ Figure 4.1 shows the interface after clicking on a variant.

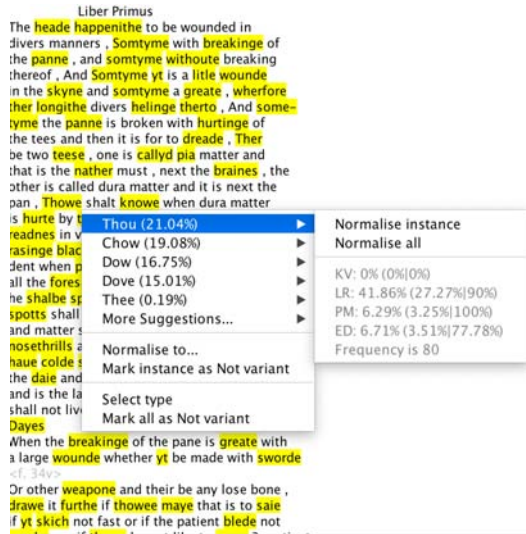


Fig. 4.1. Presentation of candidates in VARD

The second component makes use of context rules in order to deal with *real-word* errors, that is, words that do not suit in their contexts, but match another correctly spelled word (e.g. *off/off*, *bel/bee*, *put/putt*, etc.). For instance, VARD will recognize ‘bee’ as ‘be’ whenever it is preceded by a general preposition of a modal auxiliary; and when it is followed by an article or the past tense/past participle form a lexical verb (Rayson, Archer and Smith 2005: 4). Additionally, the tool allows for the joining of originally-separated words, such as ‘it self’ or ‘in deed’. This feature is also valid for those words that are split over two lines.

Figure 4.2 provides a representation of the VARD interface with H135. Thus, the text appears on the left-hand side of the window, where the user can

¹²⁵ The weights associated with each method are not fixed and may change whenever a particular method is more successful than the other. Thus, the tool is constantly ‘learning’ and, therefore it can be ‘trained’ with a sample of a particular corpus so that, after it has learned, the tool will more easily process the rest of the corpus (Baron and Rayson 2008: 8, 2009: 1).

highlight the variants, the normalised words or the non-variants, depending on the selected option on the upper right-hand side of the window. When it comes to the normalisation process, the user has two options: manual and automatic normalisation. In the case of automatic normalisation, the user can allow the tool to normalise all variants to the candidate with the highest percentage of confidence. In order to maintain control over this procedure, a confidence threshold can be provided, that is, the minimum score that a candidate must have in order to replace the variant (Baron and Rayson 2009: 8).

In the case of manual normalisation, some options are available for the purpose. First, a list of words appears in a white box, together with their frequency (this box will show the words selected by the user, i.e. variants, normalised or non-variants). Second, the different options for normalising word(s) appear below the box, where the user can select for one of the options provided by VARD.¹²⁶ *Normalise instance* / *Normalise all* allow for the normalisation of one or all the variants of a word. Finally, *Instance not variant* / *All not variant* allows the user to mark word(s) as not variant. This option is useful when VARD marks a word as variant just because it is not recorded in its database (technical nouns, proper nouns, etc.).

¹²⁶ In case no options are offered, or the offered ones are not appropriate, the user can manually add a word to the dictionary (which will be kept in the software for later uses) by clicking on *Normalise to*.

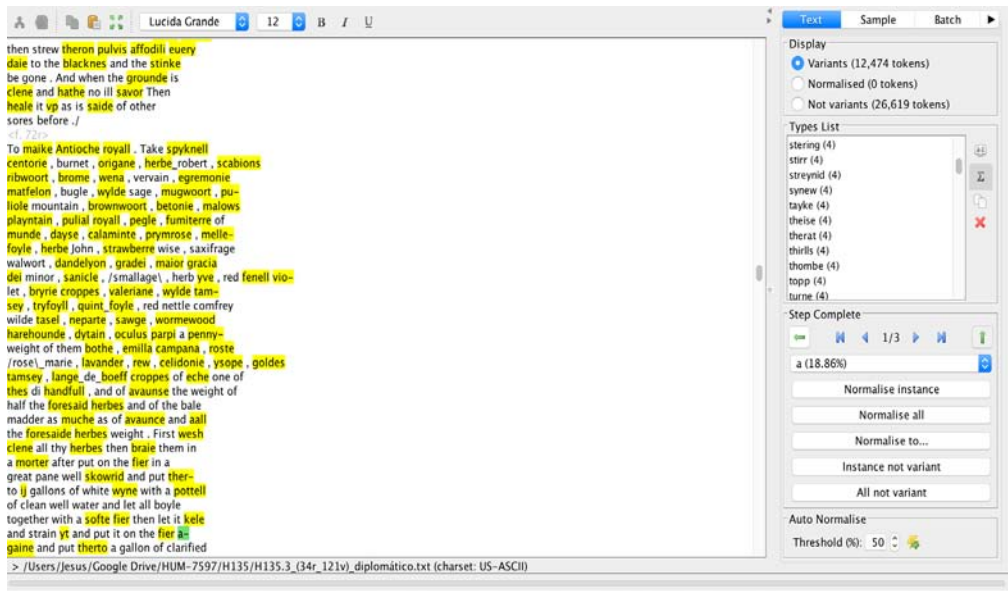


Fig. 4.2. VARD Interface

With the help of this tool, therefore, the linguist will need just four steps to turn any early Modern English text into a normalised text (Archer et al. 2015: 5-6; see also Baron and Rayson 2008):

1. Reading the text in the VARD interface.
2. Identifying the variants within the text, either with the tool's set of candidate variants or marking variant forms manually.
3. Choosing an appropriate candidate for each of the variants within the text, either from the list provided by VARD or by adding it manually.
4. Matching variants and normalised forms so that the original spelling is retained in the XML tag.

After the completion of this process, whether automatically or manually, the user has two options to save the normalised text. The text can be saved retaining the original variants, together with the normalised form (1), which would not affect the searches as the original form appears as part of an XML tag (tags have been

highlighted in bold script for the sake of clarity). On the other hand, the user can preserve just the normalised version (2).

- (1) Take the peony that **<normalised orig="beares" auto="false">bears</normalised>** the white flower, and **<normalised orig="lett" auto="false">let</normalised>** the **<normalised orig="sicke" auto="false">sick</normalised>** **<normalised orig="eate" auto="false">eat</normalised>** it, and also **<normalised orig="drinke" auto="false">drink</normalised>** the **<normalised orig="Juice" auto="false">Juice</normalised>** thereof, and it will **<normalised orig="helpe" auto="false">help</normalised>** him also **<normalised orig="lett" auto="false">let</normalised>** him **<normalised orig="weare" auto="false">wear</normalised>** it about his **<normalised orig="necke" auto="false">neck</normalised>**, for it is a most approved true and **<normalised orig="Wonderfull" auto="false">Wonderful</normalised>** good **<normalised orig="helpe" auto="false">help</normalised>** in that Malady, and **<normalised orig="theres" auto="false">there's</normalised>** but few that know it/.
- (2) Take the peony that bears the white flower, and let the sick eat it, and also drink the Juice thereof, and it will help him also let him wear it about his neck, for it is a most approved true and Wonderful good help in that Malady, and there's but few that know it/.

4.3.4.1.1. The spelling normalisation of the texts in H135

Notwithstanding that H135 is an early Modern English witness, it presents a great deal of spelling variation. Consequently, this spelling variation would have a negative effect on the performance of CLAWS, which was designed for Present-day English, hence the need of VARD pre-processing.¹²⁷ For the purpose, the txt versions of both the surgical treatise and the medical recipes were separately processed with VARD. The former amounts up to a total of 19,348 words, of

¹²⁷ See Lehto et al. (2010) for the spelling standardization of *EMEMT* using VARD.

which 6,336 were variant forms (32.7%); whereas the latter is composed of 19,482 words, the number of variants being 6,149 (31.5%). This considered, it could be safely argued that the texts contained in H135 slightly present the same level of spelling variation irrespective of the text type.

Automatic normalisation was carried out with both texts with a threshold of 50%, that is, the confidence score that candidates must have for the replacement of a variant.¹²⁸ The following results were obtained:

	<i>Surgical treatise (ff. 34r-73v)</i>	<i>Medical Recipes (ff. 74r-121v)</i>
Number of variants	6,336	6,149
Auto-normalised variants	4,792 (75.6%)	4,167 (67.7%)
Remaining variants	1,544 (24.4%)	1,982 (32.3%)

Table 4.2. Auto-normalisation of the texts in H135

As shown in Table 4.2, the auto-normalisation process standardises a great deal of spelling variation with just a mouse click, 75.6% in the surgical treatise and 67.7% in the medical recipes. However, a closer check at those normalisations reveals that they are not 100% accurate. At this point, it is necessary to make a distinction between recall and precision, the former “being the proportion of variants that have been successfully standardised” and the latter “being the proportion of standardisation made that are correct” (Baron and Rayson 2009: 9). Therefore, the results in Table 4.2 were manually revised in order to quantify the errors made in the auto-normalisation process.

¹²⁸ See Section 4.3.4.2.1. for an assessment of the accuracy of CLAWS at different levels of automatic standardisation, as well as automatic standardisation + manual post-editing.

	<i>Surgical treatise (ff. 34r-73v)</i>	<i>Medical Recipes (ff. 74r-121v)</i>
Number of variants	6,336	6,149
Recall	4,792	4,167
Precision	4,079 (85.1%)	3,609 (86.6%)
Errors	713 (14.9%)	558 (13.4%)
Remaining variants	1,544	1,982 (32.3%)

Table 4.3. Assessment of the auto-normalisation process

Table 4.3 demonstrates that even though automatic normalisation is time-saving and it can perfectly deal with most spelling variation, the outcome of the process is not always as accurate as it would be expected. This can be appreciated in the fact that there is a 14.9% and a 13.4% of errors in the surgical treatise and the medical recipes, respectively. These errors have been detected by checking the list of normalisations by VARD (Figure 4.3), and also by checking the list of non-variant words.¹²⁹ The list can be ranked either alphabetically or in terms of frequency, allowing the user to undo any detected error. Consequently, these normalisation errors and these non-variants that do not fit in their context can be reverted to the list of variant words, which the user can manually normalise in a later stage.

¹²⁹ It is important to check the list of non-variant words as it may contain words that eventually have a modern English spelling but that do not fit in their actual context, i.e. ‘meek’ for ‘make’, ‘bee’ for ‘be’, ‘off’ for ‘of’, etc.

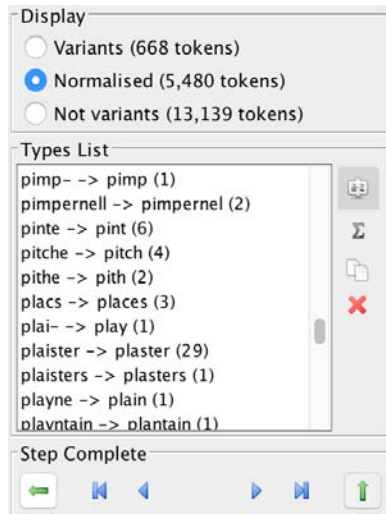


Fig. 4.3. List of normalisations in VARD

After checking the list of normalisations and non-variants, the extant number of variants has to be manually normalised. One of the toughest decisions in the process of normalisation is what to do with the archaic forms, i.e. ‘thowe’ (you) or ‘yarde’ (yard), among others. Different decisions are needed with regard to each particular case. In the case of *-en* plurals, i.e. ‘eyen’, the words were normalised to modern spelling, i.e. ‘eyes’. In the case of full archaic forms, it was decided that these words should be preserved as early Modern English words and, therefore, any attempt to normalise them would eventually derive in less accuracy to the original manuscript. Although these words were preserved, their spelling was normalised to just one form for purely quantitative purposes. In this way, the archaic form offered by VARD was chosen as the standard form to which all the variants would be normalised, as in Figures 4.4 and 4.5.

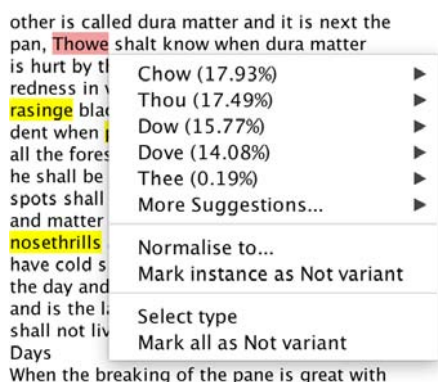


Fig. 4.4. 'Thowe'

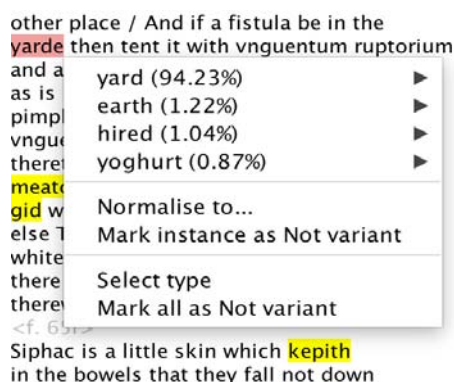


Fig. 4.5. 'Yarde'

Additionally, early Modern English words such as 'thone' have been separated ('the one') in order for them to be correctly POS-tagged by CLAWS. Another complication has been the normalisation of numerals. The scribes in H135 make use of Roman numerals, and these are not identified by VARD, having to be manually normalised: 'j' (one), 'ij' (two), etc.

Foreign words have also been dealt with in the normalisation process. Being a scientific text, they occur relatively frequently in H135 in the light of their Latin, Greek or French origin. Thus, these words have been preserved as they appear in the text. Some examples are *vnguentum ruptorium*, *vnguentum viride* or *astrologia rotunda*, among others.

It was a common practice among scribes to split words at the end of lines. This feature, together with the spelling variation proper of early Modern English, also brings about errors of VARD. These split words, therefore, had to be manually joined (VARD allows for the joining of words). Figures 4.6 and 4.7 are examples of what VARD performs whenever any of those words are found.

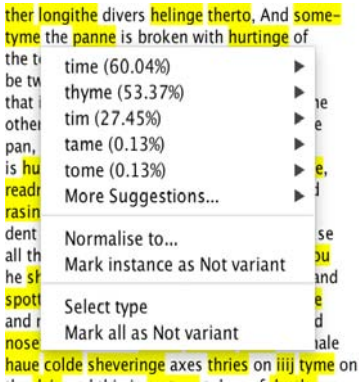


Fig. 4.6. 'some-tyme'

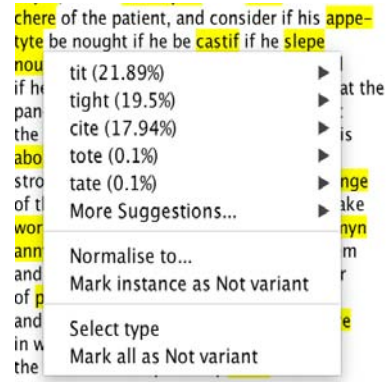


Fig. 4.7. 'appe-tyte'

Some other aspects, both positive and negative, still deserve to be mentioned. First, VARD was successful in joining compound words that are rendered separated and *viceversa*. For instance, VARD joined the groups 'penny weight' to 'pennyweight'; and separated verb forms such as 'shalbe' to 'shall be'.

The errors made by VARD could be divided into two: 1) it considers a word as non-variant but this word was actually not in its proper context; and 2) it normalised the word according to a wrong candidate that eventually had the highest confidence score. In this way, words such as 'hows' is considered as a non-variant (Figure 4.8) when it is actually a variation of 'house';¹³⁰ and words such as 'mai ke' to 'meek' (Figure 4.9), being the candidate with the highest confidence score.

¹³⁰ The *OED* records two instances of 'how' as a noun: 1. Care, anxiety, trouble, sorrow; and 2. A hill, hillock or an artificial mound, tumulus or barrow. Note in Figure 4.7 that, when the word is sent to the list of variants, VARD provides 'house' as the first candidate with a confidence score of 47.48%. However, in the case of 'mai ke', Figure 4.8, 'make' has only 0.07%.

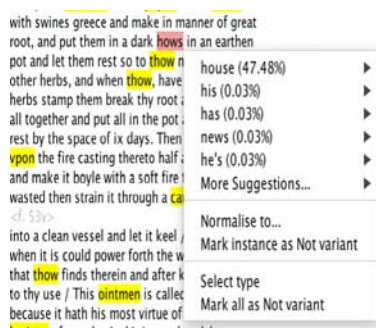


Fig. 4.8. 'hows'

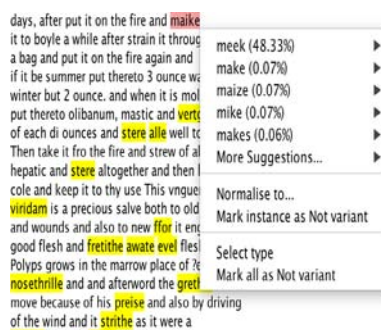


Fig. 4.9. 'maike'

Finally, VARD also made errors whenever an early Modern English genitive was found. These errors were caused by the fact that the scribes did not mark them with an apostrophe and VARD considered them as plurals. The words 'swynes' (Figure 4.10) and 'shepes' (Figure 4.11) are examples of this shortcoming. Note that VARD behaves differently with each of these two words, providing a genitive as a candidate to replace them in which the confidence score is very low for 'swynes' (0.04%) and very high for 'shepes' (80.97%).

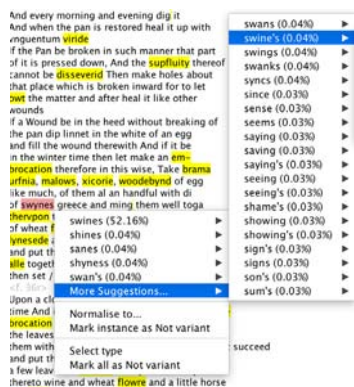


Fig. 4.10. 'swynes'

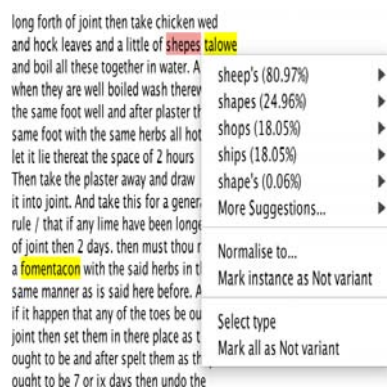


Fig. 4.11. 'shepes'

4.3.4.2. POS-tagging (CLAWS)

A corpus provided with POS-tags certainly offers many more possibilities than a mere .txt corpus; however, the potentiality of a corpus will ultimately depend on the purpose(s) of the linguist using it. POS-tagging is the commonest form of corpus annotation, where a label (tag) is assigned to each word in the text

“representing its major word class and further morpho-syntactic information” (Rayson 2015: 39). According to Atwell, the process requires

a tag set, a list of grammatical category labels; a tagging scheme, practical definitions of each tag or label, showing words and contexts where each tag applies; and a tagger,¹³¹ a program for assigning a tag to each word in the corpus, implementing the tag set and tagging-scheme in a tag assignment algorithm (2008: 501–502; see also Francis 1987: 198; Sinclair 2002: 50)

In view of this definition, it is taken for granted that the process must, or at least should be, carried out automatically, and this is due to two main reasons: one having to do with the resources and the other with the reliability of the final product. The former is related to the fact that the manual POS-tagging of a small corpus can be handled by a single linguist or a research team, whereas larger corpora obviously require more time and labour. The latter has to do with the inconsistency that may arise if several people intervene in the process, as they may make different decisions at different points. The use of an automatic tagger, therefore, would save time and at the same time it would offer a consistent final product.¹³²

Automatic annotation can be performed with accuracy at the level of morphology (prefix and suffix), lexis (part-of-speech and lemma), syntax (parsing), and semantics (semantic field and word sense). Automatic part-of-speech (POS) tagging of English is possible by producing methods which use

¹³¹ Different tagging programs have arisen during the years. According to Meyer, “the first tagging program was designed in the early 1970s by Greene and Rubin (1971) to assign part-of-speech labels to the Brown Corpus. Out of this program arose the various versions of CLAWS, developed at the University of Lancaster initially to tag the *LOB Corpus* (Leech, Garside and Atwell 1983) and subsequently to tag the *British National Corpus*” (Meyer 2002: 87; Garside, Leech and Sampson 1987; Garside and Smith 1997).

¹³² According to Garside, there are two problems when tagging automatically: the large number of homographs in English and the open-ended nature of English vocabulary (1987: 31–32).

well-defined rules of the language, among other techniques. POS-taggers can be of two different kinds: rule-based or probabilistic. In rule-based taggers, tags are provided for each word according to some rules that have been previously written. For the tagging of the *Brown Corpus*, the process consisted in three basic stages (Francis 1987: 198):¹³³

1. Assigning to each word in the text one or more symbols (tags) from a list of 81, each representing a word-class taxonomically identifiable either by morphology or syntactic use.
2. In the case of words with more than one tag, eliminating, so far as possible by computer examination of context, the irrelevant ones.
3. Continuing step 2 by manual disambiguation.

These routines were carried out in a program called TAGGIT, with an accuracy of 77% approximately, as “many of the words surrounding a word with multiple tags will have multiple tags themselves, making the process of disambiguation quite complicated” (Francis 1987: 202). Rule-based taggers have been outnumbered by probabilistic taggers, which assign tags based on the context in which a word appears. Note, for instance, the sentence *the cutting of fruit was complicated*. If we take the word *cutting*, CLAWS will tag it as a verb (-ing non-finite form of the verb *cut*), however, the fact that it is preceded by a determiner turns it into a noun denoting the activity of ‘cutting something’. This is precisely what probabilistic taggers analyse, based on “information from large corpora [using] probabilities to calculate which POS tag is most likely in a given context” (Rayson 2015: 39–40). Lindquist warns, however, that extremely useful as POS-tags may be, “there are [still] some complications, [as] it is not always obvious

¹³³ The development of these computer routines for tagging was done by Greene and Rubin (1971).

what the correct tag should be”, i.e. *looked after* in *He looked after the children*, verb + preposition or phrasal verb? (2009: 34).

TAGGIT was then used by researchers from Lancaster,¹³⁴ Oslo and Bergen in order to tag the *LOB Corpus*, who introduced some additional tags (from 87 to 134) and made use of three tools facilitated by the Brown research team: 1) a set of tags which had been used for the Brown tagging; 2) the tagged Brown corpus as a database; and 3) the TAGGIT program, which allowed researchers to detect the areas in which the program was less successful (Garside 1987: 32).¹³⁵ This new program was CLAWS (Constituency-Likelihood Automatic Word-Tagging System) and the research team divided the tagging process into three smaller processes: tag assignment, tag selection and idiom tagging (Leech, Garside and Atwell 1983: 17–18; Garside 1987: 32).

The tag assignment (WORDTAG), written by Roger Garside, consisted in a look-up in a wordlist or dictionary in order to determine the specific tags associated to each of the words in the text. In addition, a suffix list (pairings of word-endings and tags, i.e. *-ship* → NN1) is also consulted. The inclusion of a suffix list at this stage is positive as the proper wordlist can be reduced and the set of words accepted by the program can be open-ended (Leech, Garside and Atwell 1983: 18–20).

The tag selection (CHAINPROBS), written by Eric Atwell, “computes transitional probabilities between one tag and the next for all combinations or

¹³⁴ According to Garside (1996: 167; 1993), “the production of annotated machine-readable corpora has been a central activity of the UCREL team at Lancaster University that commenced with the annotation of the LOB corpus.” After that, work continued with corpora that introduced syntactic annotation at the constituent level (Leech and Garside 1991), at the level of anaphora (Fligelstone 1992), word sense and semantic relationship information (Wilson and Rayson 1993), etc.

¹³⁵ This research team added approximately 4,000 words to the wordlist and 200 suffixes to the suffix list (Leech, Garside and Atwell 1983: 26).

possible tags, and chooses the most likely path through a set of ambiguous tags on this basis” (Leech, Garside and Atwell 1983: 20). In other words, the likely tags for each word are provided, where the tag with the highest probability is in square brackets (when necessary). Together with each tag, a percentage is offered, which indicates its probability. Tags with less than 10% of probability are marked with @ while those with less than 1% are marked with % (Leech, Garside and Atwell 1983: 20–22). See Table 4.4.

this	DT
task	NN
involved	[VBD/90 VBN/10 JJ@/0
a	AT
very	[QL]/99 JJB@/1
great	[JJ]/98 RB/2
deal	[NN]/99 VB/1
of	IN
detailed	[JJ]/98 VBN/2 VBD/0
work	[NN]/100 VB/0
for	[IN]/97 CS/3
the	AT1
committee	NN

Table 4.4. Tag selection process (Leech, Garside and Atwell 1983: 20–22)

Idiom tagging (IDIOMTAG), written by Ian Marshall, deals with sequences of words that are best treated as single words, such as *in order to*, *so as to*, *according to*, etc. For the purpose, it uses “an Idiom Dictionary to which new entries may be added as they arise in the corpus (Leech, Garside and Atwell 1983: 23).

These three programs, which run automatically in CLAWS, proceed as follows: WORDTAG assigns the likely tags for every single word in the text;¹³⁶

¹³⁶ After WORDTAG has run, every syntactic unit has one or more tags associated with it, and about 35% are ambiguously tagged with two or more tags (Garside 1987: 39).

if there is a single tag, it is considered as valid and, if there are more than one, CHAINPROBS will select one of those tags according to the context in which the word appears (the tags in square brackets in Table 4.4); finally, IDIOMTAG may alter the percentages if a given word is part of a sequence (Garside 1987: 35).¹³⁷

In its more updated version, CLAWS4 achieves 96–97% of accuracy, where the POS-tagging process is carried out in five steps (Leech, Garside and Bryant 1994: 622–623):

1. Segmentation of the text into word and sentence units.
2. Initial (non-contextual) part-of-speech assignment (using lexicon, word-ending list and various sets of rules for tagging unknown items).
3. Rule-driven contextual part-of-speech assignment.
4. Probabilistic tag disambiguation.
5. Output in intermediate form.¹³⁸

A post-editing phase is needed in order to amend the possible errors made by the program. The post-editing phase could be divided into two stages: first, ambiguous taggings must be assessed in order to confirm if the probability provided by CHAINPROBS is actually correct; second, a manual check of the whole corpus so as to make the POS-tagging as accurate as possible (Garside 1987: 35).

¹³⁷ Much of the source information used by CHAINPROBS comes from the tagged Brown Corpus, providing a matrix of probabilities of tag *y* occurring given tag *x* on the immediately preceding word (Garside 1987: 39). IDIOMTAG, in turn, looks for any of a specified list of about 150 phrases in order to modify the given tags.

¹³⁸ This intermediate form is the form suitable for post-editing, which can then be converted into other formats such as the horizontal output which will be offered to the users of the corpus (Leech, Garside and Bryant 1994: 622–623).



4.3.4.2.1. The POS-tagging of the texts in H135

CLAWS has been selected as the automatic POS-tagger for the Malaga Corpus of Early Modern English Scientific Prose. The CLAWS POS-tagger (Garside and Smith 1997), for example, uses a dictionary which includes words (or multi-word units) and suffixes with their possible parts of speech. This dictionary is based upon Modern English and does not include the large amount of spelling variants (as previously discussed) and the archaic/obsolete words found in EModE texts (Baron and Rayson 2008: 5). Therefore, the spelling variation in H135 naturally poses a problem when automatically POS-tagging the text, where the accuracy of CLAWS decreases. In order to demonstrate this, an experiment was carried out, and it was basically testing CLAWS with H135 at different levels of normalisation by way of VARD. The following excerpt has been included in order to provide an example of the final normalised and POS-tagged corpus.

Take_VV0 a_AT1 handful_NN1 of_IO beans_NN2 /_FO **proche_NN1**
 them_PPHO2 on_II a_AT1 tilestone_NN1 pick_VV0 off_RP the_AT
 hulls_NN2 bray_VV0 them_PPHO2 in_II a_AT1 mortar_NN1 to_II
 fine_JJ powder_NN1 ,_, Seethe_VV0 that_DD1 powder_NN1 in_II a_AT1
 pint_NNU1 of_IO red_JJ wine_NN1 and_CC cinnamon_NN1 **to_TO**
 they_PPHS2 be_VBI as_RG thick_JJ as_CSA **leach_VV0** then_RT
 so_RG soon_RR as_CSA it_PPH1 is_VBZ cold_JJ **slice_NN1** it_PPH1
 and_CC lay_VVD the_AT slices_NN2 on_II a_AT1 saucer_NN1 before_II
 the_AT fire_NN1 and_CC when_CS they_PPHS2 are_VBR warm_JJ
 let_VV0 the_AT patient_NN1 eat_VVI them_PPHO2 **first_MD**
and_CC last._NNU

As can be observed, some errors can be appreciated (highlighted in bold script). The first one, ‘proche’ as a noun,¹³⁹ is understandable inasmuch as ‘proche’ is an

¹³⁹ †**proche**: to prick, pierce, spur (*OED* s.v. *proche*, v. 1).



obsolete word (according to the *OED*) and, therefore, it is presumably not included in the CLAWS dictionary. The same happens with the word ‘leach’,¹⁴⁰ which is tagged as a verb but it is in fact a noun. In the cases of ‘to’, ‘first’ and ‘last’, they are wrongly tagged, as they should be adverbs. Finally, ‘slice’ is wrongly tagged as a noun (it is in fact a verb), most likely because it is preceded by an adjective.

In order to evaluate the accuracy of CLAWS, the texts in H135 were automatically normalised at different levels, with thresholds of 0%, 50% and 70%, that is, from a totally normalised text to a text in which only those candidates with above 70% of confidence score have replaced their variant. In order to calculate the accuracy of CLAWS in these samples, 1,000 words belonging to the surgical text and 1,000 to the medical recipes were manually taken. Table 4.5 shows the results.

	Surgical treatise	Medical recipes
No spelling normalisation	82.9	83.9
Automatic normalisation (threshold 50%)	91.6	93.3
Automatic normalisation (threshold 70%)	94.5	95.7
70% threshold + manual normalisation	96.8	97.2

Table 4.5. CLAWS accuracy at different levels of normalisation (%)

The data in Table 4.5 demonstrates the need for spelling normalisation when automatically POS-tagging early Modern English texts. It must be noted that, at a threshold of 50%, more words are normalised albeit these are not always correct, hence the higher rate of error if compared with a normalisation at a threshold of 70%. As observed, with no normalisation, CLAWS is effective at a rate of 82.9% and 83.9% in the surgical treatise and the medical recipes, respectively. This would mean that almost one out of five words would be erroneously tagged, approximately 200,000 words in a 1,000,000-word corpus.

¹⁴⁰ †leach¹: a slice (of meat, etc.); a strip (*OED* s.v. *leach*, n. 1).

When it comes to automatic normalisation, on the one hand, at a threshold of 50% the accuracy of CLAWS improves 8.7% and 9.4% in the surgical text and the medical recipes, respectively. Moreover, at a threshold of 70%, accuracy improves 11.6% and 11.8% in the surgical treatise and the medical recipes, respectively. On the other hand, when automatic normalisation (threshold=70%) and manual normalisation are combined, accuracy improves once again. Thus, auto-normalisation with a threshold of 70% together with manual normalisation of the remaining variants improves the POS-tagging process at a rate of 13.9% and 13.3% in the surgical treatise and the medical recipes, respectively. Therefore, the texts under study in the present PhD dissertation are POS-tagged with an accuracy of 96.8% and 97.2%, an accuracy similar to that obtained in PDE.



CHAPTER 5

THE LINGUISTIC COMPLEXITY IN THE TEXTS OF H135

The present chapter assesses the level of linguistic complexity in the texts of H135 analysing three different layers of language use: textual organisation; linguistic features associated with reduced linguistic complexity; and linguistic features associated with increased linguistic complexity. For the purpose, section 5.1 provides a theoretical framework for linguistic complexity as well as previous studies on the topic; section 5.2 elaborates on a working definition of genre, register and text type; section 5.3 analyses the texts from a macro-linguistic and a micro-linguistic perspective; and section 5.4 offers a discussion of the results.

5.1. Linguistic complexity: a theoretical framework

By a complex system I mean one made up of a large number of parts that interact in a nonsimple way (Simon 1962: 468).

On theoretical grounds we could expect complex systems to be hierarchies in a world in which complexity had to evolve from simplicity (Simon 1962: 482).

These excerpts have been taken from Simon's early definition of complexity, which has proven valid for many research fields, where he assumes that complexity originates from simplicity.¹⁴¹ Later on, this definition was further elaborated by Rescher evaluating complexity as “a matter of the number and variety of an item's constituent elements and of the elaborateness of their interrelational structure, be

¹⁴¹ Following this thread, Karlsson argues that the term complexity can be sporadically employed to refer to “the whole parameter ‘complex–intermediate–simple’”, implying that complexity will not be fully understood if the other end of the parameter (simplicity) is not considered (2014: 145–146).

it organizational or operational” (1998: 1).¹⁴² Moreover, Dahl (2004: 21) provided a third definition arguing that complexity would depend on the length of the account needed to describe the system.

Of these three definitions, Simon’s is obviously of paramount importance as it was ground-breaking in the 1960s. However, Rescher not only provides a definition but also a quite detailed taxonomy of different aspects of complexity operating at different levels: epistemic, ontological and functional. Thus, Simon’s definition would fall within constitutional and hierarchical complexity (Rescher’s ontological level) and Dahl would do so within descriptive complexity (Rescher’s epistemic level).

If this is applied to linguistics, it would mean that language is composed of small units that, when combined, form hierarchies where different governing levels can be observed. These simple elements would be affixes and/or inflections, followed by words and phrases; whereas clauses/sentences as well as mechanisms such as coordination or subordination would stand for the hierarchical relationships among the elements.

MODES OF COMPLEXITY

EPISTEMIC MODES

Formulaic Complexity

- | | |
|---------------------------|---|
| 1. Descriptive Complexity | Length of the account that must be given to provide an adequate description of the system at issue. |
|---------------------------|---|

¹⁴² According to Rescher, “simplicity represents economy and orderliness in a thing’s make-up or operations; [whereas] complexity [represents] its elaborateness as reflected in the intricacy or even actual disharmony in these regards” (1998: 8).

2. Generative Complexity	Length of the set of instructions that must be given to provide a recipe for producing the system at issue.
3. Computational Complexity	Amount of time and effort involved in resolving a problem.

ONTOLOGICAL MODES

Compositional Complexity

1. Constitutional Complexity	Number of constituent elements or components.
2. Taxonomical Complexity	Variety of constituent elements: number of different kinds of components in their physical configurations.

Structural Complexity

3. Organizational Complexity	Variety of different possible ways of arranging components in different modes of interrelationship.
4. Hierarchical Complexity	Elaborateness of subordination relationships in the modes of inclusion and subsumption.

FUNCTIONAL COMPLEXITY

1. Operational Complexity	Variety of modes of operation or types of functioning.
2. Nomic Complexity	Elaborateness and intricacy of the laws governing the phenomena at issue.

Table 5.1. Rescher's Modes of Complexity (1998: 9)



Taking Rescher's classification into account, we could associate different linguistic features with different modes of complexity. For instance, sentence length would fall within constitutional complexity; subordination would work at hierarchical level, as it represents different governing levels within the system; and text layout would be included into organisational complexity, as it shows the arrangement of the different parts of a text and its components.

Language complexity has been hotly debated during the course of the last century and, despite the different linguistic trends of different schools (i.e. descriptivists and generativists), there has been general consensus on the invariance of language complexity (Sampson 2009: 2).

[...] impressionistically it would seem that the total grammatical complexity of any language, counting both morphology and syntax, is about the same as that of any other. This is not surprising, since all languages have about equally complex jobs to do, and what is not done morphologically has to be done syntactically. Fox, with a more complex morphology than English, thus ought to have a somewhat simpler syntax; and this is the case (Hockett 1958: 180–181).

However, this assumption has been recently criticised as there have been numerous studies demonstrating that there are conditioning factors that eventually increase or decrease the level of complexity.¹⁴³ In her work, Nichols provides a definition of what she calls *grammatical complexity*: “a complex system as one consisting of many different elements each with a number of degrees of freedom” (Nichols 2009: 111). In addition, she enumerates four different parameters on which complexity can be measured: the number of elements

¹⁴³ In this vein, Nichols argues that “what is needed is a cross-linguistic survey of complexity levels in different parts of phonology, grammar, and lexicon. If the sample were large enough and the complexity survey broad and detailed enough, this would tell us whether all languages are in fact equally complex, or at least whether there is some optimal overall level of complexity and/or some upper and lower limit to overall complexity” (2009: 110–111).

contained in each grammar's subsystem (genders, cases, tenses, etc.), the number of paradigmatic variants or degrees of freedom (allophones, allomorphs, etc.), syntagmatic phenomena (syntagmatic dependencies among elements, such as agreement, among others) and constraints on elements, alloforms and syntagmatic dependencies together with their combination (Nichols 2009: 112).¹⁴⁴

5.1.1. Linguistic features denoting complexity

There are studies trying to identify various linguistic features to assess different levels of complexity in a given text. However, as far as I know, no approach has been made using early English medical writing as the input, a fact which sharply contrasts with the various studies in English complexity, both synchronically and diachronically. Among the synchronic approaches to the topic, Crystal and Davy (1969), Biber (1992) and Bhatia (1993) analysed different text types in contemporary English; while Danet (1980) did so exclusively in legal English. When it comes to diachronic studies, in turn, Hiltunen (1990) and Lehto (2015) approached the topic in early Modern English legal texts.

Crystal and Davy's work (1969) was ground-breaking inasmuch as they not only identified the different features of some English text types (i.e. the language of conversation, unscripted commentary, religion, newspaper reporting and legal documents), but also outlined a series of text types for future research (i.e. the television advertising, press advertising, public speaking, written instructions, civil service,¹⁴⁵ spoken legal language, broadcast talks and news and

¹⁴⁴ This latter parameter refers to the reduction of the number of combinations between particular components of the system. These restrictions could be considered to increase or decrease the level of complexity, depending on whether we consider complexity as the number of elements contained in the system or the information required to describe the system, respectively (Nichols 2009: 112).

¹⁴⁵ This refers to the body of rules and regulations that are applicable to the various members of a society (Crystal and Davy 1969: 242).

science). In their work, they analysed the different text types in terms of phonetic/graphetic, phonological/graphological, grammatical, lexical and semantic levels (Crystal and Davy 1969: 15). This allowed them to identify, among others, inexplicitness of the language, randomness of subject matter and normal non-fluency as characteristic elements of the language of conversations; or the use of vocatives and simple sentence structure as characteristics of religious language.

This work served as a base for Biber's analysis (1992), based on Biber (1985; 1988), where a macroscopic analysis of different registers was carried out through the identification of five different dimensions of textual variation.¹⁴⁶ For the purpose, Biber analysed the distribution of 67 linguistic features across 481 texts belonging to 23 spoken and written registers and, by means of an exploratory factor analysis, five different dimensions of variation were identified among registers in English.¹⁴⁷ These dimensions were 'involved vs. informational production', 'narrative vs. non-narrative concerns', 'explicit vs. situation-dependent reference', 'overt expression or persuasion' and 'abstract versus non-abstract style' (1988: 170–198). The different dimensions contain two sets of linguistic features that co-occur in a complementary pattern, that is, when one of the groups occurs frequently in a particular text, the other is less frequent in that text. In other words, the occurrence of one set of features implies the scarcity of the other (Biber 1989: 8–9; see also 170–198).

¹⁴⁶ According to Biber, "macroscopic analysis attempts to define the overall dimensions of variation within a set of texts. Microscopic analysis, in turn, provides a detailed description of the communicative functions of particular linguistic features in particular texts" (1985: 338).

¹⁴⁷ A linguistic dimension is determined on the basis of a consistent co-occurrence pattern among features. That is, when a group of features consistently co-occur in texts, those features define a linguistic dimension (Biber 1988: 13).

In Biber (1992), 33 out of those 67 linguistic features were labelled as potential markers of linguistic complexity, some of them indicating reduced complexity and others pointing to increased complexity.

List of 33 surface features associated with linguistic complexity

I. Features associated with reduced complexity

A. Structural reduction

1. *That* deletions
2. Contractions

B. Less specified reference

3. Pro-verb *Do*
4. Pronoun *It*
5. Demonstrative pronouns

C. Fragmented structure

6. Clause coordination
-

II. Features associated with increased complexity

D. Integrated structure

7. Nouns
8. Prepositions
9. Attributive adjectives
10. Nominalizations
11. Phrasal coordination

E. Lexical specificity

12. Word length
13. Type/token ratio

F. Passive constructions

14. Agentless passives
15. *By*-passives

G. Dependent clauses

- G1. Structural elaboration of reference – post-nominal modifiers

16. Wh-relative clauses on subject position
17. Wh-relative clauses on object position
18. “Pied piping” relative clauses
19. *That*-relative clauses on object position
20. *That*-relative clauses on subject position
- G2. Attitudinal clauses
 21. Sentence relatives
- G3. Complement clauses
 22. Wh-Clauses
 23. *That*-complement clauses to verbs
 24. *That*-complement clauses to adjectives
 25. Infinitives
- G4. Adverbial clauses
 26. Conditional adverbial subordination
 27. Causative adverbial subordination
 28. Concessive adverbial subordination
 29. Other adverbial subordination
- G5. Participial clauses
 30. Present participial post-nominal clauses
 31. Past participial post-nominal clauses
 32. Present participial adverbial clauses
 33. Past participial adverbial clauses

Table 5.2. Linguistic features associated with complexity (Biber 1992: 140)

It is important to take into account that what is being measured by way of the frequency of the linguistic features in Table 5.2 is the product rather than the process, that is, the representation of the surface structure of language.¹⁴⁸ In other words, linguistic features such as *that*-deletions, contractions or the use of the anaphoric pronoun *it* would imply a less complex surface structure but, at the

¹⁴⁸ In this vein, Biber argues that the “inclusion of features relating to information packaging, cohesion, and rhetorical organization would enable further models” of analysis (1992: 160).

same time, these utterances would require a greater effort on the part of the listener/reader to decipher the message.

The study sheds light on the differences between spoken and written registers, where it is demonstrated that spoken registers are limited in relation to the complexity levels they can perform, whereas written registers show quite different levels of complexity depending on the different text types (Biber 1992: 160).

A different approach is observed in Bhatia’s (1993) work on professional genres, where three genres are analysed: product and self-promotion in business settings, research genres in academic settings¹⁴⁹ and legal discourse in professional settings. The two first genres are analysed in terms of their structure, which is conditioned by the communicative purpose of both genres. These structures contain a series of moves according to the communicative purposes, which will eventually allow the reader to identify the genre easily.

Research genres in academic settings	1. Introducing purpose
	2. Describing methodology
	3. Summarising results
	4. Presenting conclusions
Product and self-promotion in business settings	1. Establishing credentials
	2. Introducing the offer
	3. Offering incentives
	4. Enclosing documents
	5. Soliciting response
	6. Using pressure tactics
	7. Ending politely

Table 5.3. Structural properties of genres in Bhatia (1993)

¹⁴⁹ The analysis of this genre is limited to abstracts and introductions of articles, focusing on their communicative purposes and their structure.

The analysis of legal discourse in professional settings is different inasmuch as Bhatia (1993: 106–113) provides a series of syntactic properties that are commonly found in the texts belonging to that genre, and that certainly contributes to the linguistic complexity of that text:

1. Long sentences.
2. Nominal character.
3. Complex prepositional phrases.
4. Binomial and multinomial expressions.
5. Initial case descriptions.
6. Qualifications.
7. Syntactic discontinuities.

This analysis takes many of the elements analysed by Danet (1980) in a previous study on contemporary legal texts. Her analysis is based on four different levels: lexical features (technical terms, loanwords, unusual prepositional phrases, etc.), syntactic structures (nominalisation, passives, conditionals, impersonality, etc.), discourse level features (lack of cohesion, lack of pronouns, etc.) and prosodic features (alliteration and assonance) (Danet 1980: 474–487).

Finally, Lehto (2015) carried out a diachronic analysis evaluating if the level of complexity in legal writing increases over time. For the purpose, she analysed six linguistic levels: text structure, sentence length and punctuation, clausal coordination, phrasal coordination, subordination and lexical bundles. This study is particularly relevant inasmuch as it addresses linguistic complexity from a diachronic point of view, allowing for an evaluation of the evolution of certain linguistic features. Among her findings, she concluded that the use of punctuation is quite consistent in the data (even in the fifteenth century) and that documents show a considerable structural organisation (Lehto 2015: 135). Furthermore, she demonstrates that the connector *and*, the most widely used in

the period, declines towards the end of the corpus line, a fact which coincides with an increase in the use of punctuation (Lehto 2015: 170).

In my opinion, three of these approaches complement each other and are all necessary for the study of linguistic complexity. First, the seminal work by Crystal and Davy (1969) and later the work of Biber (1992) provided quite an acceptable set of linguistic features on which an assessment of linguistic complexity can rely, either from a macroscopic or a microscopic perspective. In addition to these, Bhatia (1993) included macro-textual elements (i.e. text structure) that also have some effect on the complexity of a text. To these Lehto (2015) also incorporated text layout as an additional distinguishing criterion.

This considered, the following sections offer an assessment of linguistic complexity in the texts contained in H135. A microscopic analysis is proposed where the textual organisation as well as the frequency of Biber's linguistic features (1992) is compared in both texts.¹⁵⁰ For the purpose, section 5.2 offers a working definition of genre, register and text type, necessary to see the differences between surgical treatises and remedybooks *a priori*; Section 5.3 provides an assessment of complexity in the texts, organised into textual organisation, features associated with reduced complexity and features associated with increased complexity; and Section 5.4 enumerates the conclusions.

5.2. Genre, register and text type: a working definition

The relevance of context in the study of language was initially approached by Halliday four decades ago, when he developed the theory of 'language as social semiotic' (Halliday 1975, 1978; Halliday and Hasan 1985),

¹⁵⁰ Both macro-analysis and micro-analysis are mutually dependent. While macro-analysis depends on the co-occurrence of relevant linguistic features, micro-analysis "benefits from the overall theoretical framework provided by macroanalysis" (Biber 1985: 339).

A social reality (or a ‘culture’) is itself an edifice of meanings – a semiotic construct.¹⁵¹ In this perspective, language is one of the semiotic systems that constitute a culture; one that is distinctive in that it also serves as an encoding system for many (though not all) of the others (Halliday 1978: 2).

This theory has its foundations in John Firth’s (1935)¹⁵² work on ‘sociological linguistics’, which discussed the study of language from a social perspective and outlined a classification of contexts of situation within a greater context of culture, each displaying specific linguistic features.¹⁵³ In fact, it could be said that text and context are “so intimately related that neither concept can be enunciated without the other” (Halliday 1973: 49; Halliday and Hasan 1985: 52).

The idea of context is also related to the fact that each form of communication, whether written or spoken, has a purpose that ultimately determines its nature. Therefore, different purposes will feature different characteristics and structure, hence the possibility of identifying the intentions of the sender of the message by the way language is constructed (Eggins 1994: 4). Furthermore, by providing the study of language with this social component, the interaction between people is understood as an elementary constituent of

¹⁵¹ Halliday (1975: 60) describes the ‘sociosemiotic’ aspect of language as the synthesis of three modes of interpretation, that of language in the context of the social system, that of language as an aspect of a more general semiotic, and that of the social system itself as a semiotic system. In other words, it is the definition of a social system, or a culture, as a system of meanings.

¹⁵² Saussure is often referred to, together with Peirce, as the father of semiotics, as he had already addressed the topic in *Course in General Linguistics* (1916), assuring that “if we are to discover the true nature of language, we must learn what it has in common with other semiological systems” (Fawcett et al. 1984: xxiii).

¹⁵³ It was Bronislaw Malinowski from whom Firth derived his notions of ‘context of culture’ and ‘context of situation’ (Malinowski 1923); and Malinowski’s ideas about what we might call cultural and situational semantics provide an interesting starting point for the study of language and social man, since they encourage us to look at language as a form of behaviour potential (Halliday 1973: 49).

language, which will be interpreted within a sociocultural context, where the culture itself is interpreted in semiotic terms (Halliday 1978: 2). Thus, culture plays an important role in the understanding of any given text, as its meaning has much to do with the information shared between the writer (or speaker) and the reader (or listener) of a text (or any other form of communication).

The concept of genre is used to describe the impact of the context of culture on language by exploring the staged, step-by-step structure cultures institutionalise as ways of achieving goals (Eggins 1994: 9).¹⁵⁴ It is the way in which texts are structured according to the seeking of a particular goal in a particular culture, differing from register in that genre pursues the study of complete texts to analyse features that help establish a common structure in different texts of the same variety, while register focuses on specific situational contexts that can be analysed in small excerpts (Biber and Conrad 2009: 16). Swales, for instance, defined genre as

[...] comprising a class of communicative events, the members of which share some set of communicative purposes. These purposes are recognized by the expert members of the parent discourse community, and thereby constitute the rationale of the genre. This rationale shapes the schematic structure of the discourse and influence and constrains choice of content and style. Communicative purpose is both a privileged criterion and one that operates to keep the scope of a genre as here conceived narrowly focused on comparable rhetorical action. In addition to purpose, exemplars of a genre exhibit various patterns of similarity in terms of structure, style, content and intended audience. If all high probability expectations are realized, the exemplar will be viewed as prototypical by the parent discourse community (2004: 58).

¹⁵⁴ According to Moessner, “the concept [of genre] can be traced back to Aristotle, who established the genres tragedy, comedy, and epic on the basis of the object and the mode of presentation (2001: 131).

This position falls between two other schools of genre proposed by Hyland (2002: 114–115). First, the New Rhetoric group regards genre as “a socially standard strategy, embodied in a typical form of discourse, that has evolved for responding to a recurring type of rhetorical situation” (Coe and Freedman 1998: 137). This position is mainly concerned with the sociolinguistic background of both communities and text users rather than with texts themselves. Second, the Sydney School, based on Halliday’s Systemic Functional Linguistics (1994), views genres as the schematic structure of texts in order to serve different social purposes.

Taavitsainen’s study of medical writing in Middle and early Modern English views genres as “inherently dynamic cultural schemata used to organise knowledge and experience through language. They change over time in response to their users’ sociocultural needs” (2001: 139–140; see also Taavitsainen 2004: 75).¹⁵⁵ This definition fits perfectly with the historical development of early English medical writing, as it was during the fourteenth and fifteenth centuries when texts of this kind started to be created in English for the first time, and the genre conventions had to be created. In this period, we assist to a shift from Latin and/or French to English as the lingua franca of science in Tudor England (Pahta 2001: 205–206). Socially-biased as they are considered to be, genres vary and new genres are created when they are needed in society, and the emergence of the experimental essay perfectly depicts this phenomenon.

The innovative characteristics of this new text type derived from the great importance attributed to the experimental process in the research programmes of Early Modern English men of science, who [...] shared the

¹⁵⁵ Taavitsainen proposes a similar definition of genres, seeing them “as a mental frame in people’s minds which gets realised in texts for a certain purpose in a certain cultural context” (2001: 140). Taavitsainen also connects genres to the idea of appropriation, “the process by which meaning is negotiated and produced and the ways in which discourses affect the reader and lead to a new form of comprehension of oneself and the world” (2004: 76). This being so, the meaning of different texts would be recreated any time they are read for the first time by a different reader.

principle that the progress of knowledge could not be based on the servile observance of traditional theory, but should rely on the observation of natural phenomena and accurate experimental activity (Gotti 2001: 221).

Among the features of this new text type we find brevity, precision, lack of assertiveness (no requirement to come to a particular conclusion, but exposing everything that has been encountered), perspicuity, simplicity and objectivity (Gotti 2001: 224–235). As observed, many of these features would have clashed with the prevailing scholastic model of science in the late Middle Ages. Thus, what we see here is an upcoming text type to serve the new needs of the scientific community, among which we may highlight brevity, precision and objectivity.

The situational context, or register theory,¹⁵⁶ describes the impact of dimensions of the immediate context of situation of a language event on the way language is used. Three key dimensions of the situation are identified as having significant and predictable impacts on language use. These three dimensions, the register variables of mode (amount of feedback and role of language), tenor (role relations of power and solidarity) and field (topic or focus of the activity), are used to explain our intuitive understanding that we will not use language in the same way as to write as to speak, to talk to our boss as to talk to our lover and to talk about linguistics as to talk about jogging (Halliday and Hasan 1985: 29–34; Martin 1992: 508–542; Eggins 1994: 9).

Finally, text types represent the linguistic realisations of genres, that is, they contain a series of linguistic features that may or may not belong to a common genre. Given this, a genre or register can contain different text types which may share the specific schemata of their genre and, at the same time,

¹⁵⁶ Register has been defined by Biber as texts varieties of a language associated with particular situations of use (2012: 191). Trosborg, in turn, interpret registers as “an open-ended set of varieties (or styles) of language typical of occupational fields, such as the language of religion, the language of legal documents, the language of newspaper reporting, medical language, technical language, etc.” (1997: 5).

contain different linguistic features. Consequently, text types differ from genres in that the former are characterised by their internal linguistic elements whereas the latter are shaped by way of extra-linguistic features (Biber 1988: 70; see also Lehto 2015: 31).¹⁵⁷ According to Taavitsainen, a text type is

a codification of linguistic features, but its individual members contain these features in various degrees in various combinations. Text types are heterogeneous, the borderlines are fuzzy and the features overlap. Some prototypical text type features, such as sentence forms, have been identified, but the actual texts seldom exhibit these in pure form. Thus, the analyst has to go further and consider the overall structure and purpose of the text (2001: 142; see also Taavitsainen 2004: 75).

If this categorization is applied to medical writing, it will be found that medical texts for learned and lay people employ different linguistic features and vocabulary, as context is made up of different layers that include the micro-level co-text (linguistic features) and the cultural, intellectual and historical macro-level (genre conventions) (Taavitsainen and Fitzmaurice 2007: 25–26; Taavitsainen 2011: 95). Moreover, even though genres present different linguistic features, they do not fully represent the variety of texts within the English language. Therefore, distinct texts belonging to the same genre (i.e. newspaper articles can be both narrative and colloquial or, on the contrary, informational and elaborated) would represent different text types; while similar texts within different genres would stand for a single text type (Biber 1989: 6).

¹⁵⁷ According to Kohnen (2001a: 197), the definition of text type has been historically divided into two different aspects. On the one hand, analysing texts in terms of extra-linguistic parameters (addressor, addressee, purpose, discourse situation, etc.). On the other, analysing texts in terms of formal parameters, that is, the co-occurrence patterns of morpho-syntactic features (Biber 1988). In the present study, however, those studies within the first aspect are considered to belong to genre studies, whereas those within the second aspect are identified as text type approaches.

These social aspects (specific language patterns designed for the achievement of particular social goals, be it scientific writing of private letters, to name but two) have one more consequence that may have an impact on language variation and/or evolution. Thus, different text types may accelerate the diffusion of certain linguistic features, where “the linguistic patterns of texts associated with an important and powerful institution seem to spread much more easily than those of other, less prestigious texts” (Kohnen 2001b: 115).¹⁵⁸

To sum up, in the following sections I will refer to genre as the intended linguistic structure serving socio-cultural purposes. Register will be considered as the context of situation. Finally, text types will embody the linguistic realisations of genre. It must be noted that the present chapter analyses text structure and layout as well as the frequency of certain linguistic features in two different text types (i.e. surgical treatise and medical recipes) belonging to the same genre (i.e. medical writing).

5.3. Analysis

In order to assess the level of complexity in the surgical treatise and the collection of recipes, a two-stage analysis is proposed. Consequently, macro-linguistic factors such as text structure and text layout are evaluated in Section 5.3.1, as they certainly have an impact on the way information is processed by the speaker. Subsequently, Section 5.3.2 analyses the frequency of a set of linguistic features that signal reduced or increased linguistic complexity.

5.3.1. Macrolinguistic factors

Text structure and text layout have been selected as indicators of complexity on macro-linguistic grounds. Within the former, the different parts of the texts (i.e.

¹⁵⁸ Kohnen describes the function of text types as “that of a catalyst, i.e. as an agent which facilitates a change and is responsible for the spread, but not for the origin of a construction” (2001b: 111).

surgical treatise and medical receipts) will be described while the latter incorporates titles, paragraphing, script size, marginalia and the use of capital letters. Some of these elements are further classified, such as the title (standing alone in a single line, being part of the paragraph, in the marginalia, or whether by a different script) or the script size.

This macro-linguistic analysis, therefore, falls within the field of discourse analysis, which is a branch of linguistics that can be divided into three subcategories: 1) the study of language use; 2) the study of linguistic structure ‘beyond the sentence’; and 3) the study of social practices and ideological assumptions associated with language and/or communication (Schiffrin, Tannen and Hamilton 2001: 1; see also Biber, Connor and Upton 2007: 1). While the first focuses on the use of specific linguistic structures and their different meanings, the second concentrates on elements such as the different paragraphs of a text and the lexico-grammatical features for the organization of discourse. Finally, the third subcategory refers to the reason why texts are written following specific genre conventions and why they are used by a particular community (Biber, Connon and Upton 2007: 1–6).

If these three categories are linked to the definitions of genre and register (see 5.2 above), it is found that they fall within different subcategories of discourse analysis. Thus, the study of language would be associated with register whereas the study of the linguistic structure ‘beyond the sentence’ would be associated with genre.

5.3.1.1. Text structure

This stage of the analysis belongs to the field of text linguistics, which at the same time is part of discourse analysis. Text linguistics came out of the conviction that the study of language should not only be limited to the sentence and its actual elements, but also to the different groupings of these sentences into paragraphs

and then into texts. In this vein, Östman and Virtanen (1995: 245–251) identified five different fields of study in text Linguistics.

1. Information structure. It is related to the different word orders that may be found in English sentences, according to the arrangement of new versus old information. Thus, the amount of new information is assessed in order to see whether it is influencing the use of a particular construction or not (i.e. passive constructions, etc.).
2. Cohesion. The explicit linking of sentences by means of repetitions of items, co-reference, etc.
3. Coherence. The interpretation of the text, that is, “the text world which the text receiver is building around the text” (Östman and Virtanen 1995: 249).
4. Grounding. Linguistic elements that are used to check the listener’s comprehension, to make discourse more interesting (i.e. jokes, expressions of feeling, etc.), or to transmit the intended message.
5. Discourse types and genres. The analysis of particular characteristics of genres and registers that directly influence their text structure.

A different approach to the analysis of genre through text structure is that proposed by Swales (1990). In his analysis, he identified different rhetorical moves or communicative purposes characteristic of different genres.¹⁵⁹ These moves are, at the same time, further classified into conventional (those occurring more frequently in the texts of a genre) and optional (those occurring less frequently) (Biber, Connor and Upton 2007: 24). Therefore, texts belonging to the same genre incorporate the same moves even though they may present a different distribution.

¹⁵⁹ According to Biber, Connor and Upton, “a move [is] a section of a text that performs a specific communicative function. Each move not only has its own purpose but also contributes to the overall communicative purpose of the genre” (2007: 23).

In order to compare the structure of the different texts in H135, an analysis of the moves in their structure was carried out. In the case of the surgical treatise, eight different moves have been identified:

1. Description of the problem
2. Tokens of the disease/bad condition
3. Surgical operation
4. Wound healing
5. Likely complications
6. Alternative wound healing
7. Efficacy phrase
8. Surgeon's personal experience

Of these moves, only three are present in all the treatments: description of the problem, surgical operation and wound healing. It must be noted, however, that some of the treatments do not require a surgical operation *per se*, as they are at skin level. In such a case, the compulsory moves are reduced to two: description of the problem and wound healing.¹⁶⁰

Regarding the description of the problem, there are different structures in the text. For instance, the excerpt may open with a description of the different problems found in a specific body part (1), a description of a wound caused by a certain weapon (2), or a definition of a particular cutaneous malady (3).

- (1) THE heade happenithe to be wounded in divers manners, Somtyme with breakinge of the panne, and somtyme withoute breaking thereof, And Somtyme yt is a litle wounde in the skyne and somtyme a greate, wherfore ther longithe divers helinge therto, And sometyme the panne is broken with hurtinge of the tees and then it is for to

¹⁶⁰ It must be noted that, even though there are only three rhetorical moves that are always present in the surgical treatments, what we find is these three moves together with others, making the text structure of surgical treatments quite unpredictable.

dreade, Ther be two teese, one is callyd pia matter and that is the nethermost, next the braines, the other is callid dura matter and it is next the pan (f. 34r).

- (2) FOR Wounde *with* arow or darte in the visag by the nose thrills or besyde the eigne on the cheke bone so that the yron haue entrid depe or slekythe *within* some narow croked place then it is wonderfull laboriouse to draw furthe (f. 38r).

A WOUND with a Sworde happenithe to be many times in the thighe with hurting of the bone or not (f. 67v).

IF THE WHIRLEBONE BE HURTE with a sworde in suche manner that some of the bone be smitten awaie and some abyde still (f. 67v).

- (3) A FISTULE is an apposteme whose mowthe is straite *withoute* and the grounde of yt *within* is large *which* fystule is causid and gendrid somewhiles of Inwardlie thinges and somewhiles of owtwardly thinges (f. 52r).

Sometyme There springe Certeyn rownde knobbes like to wax kernells and some Are greater and some smaler, And we call them in englishe wennes or scrophules And some of the knobbes ar hard and some are softe and some be moveble and some unmoveble (f. 40r).

After the explanation of the malady, the text sometimes includes a list of tokens for the the surgeon to detect the health problem. These tokens are specially provided when the malady is related to bones or it is not at skin level (4).

- (4) Thowe shalt knowe when dura matter is hurte by thes tokens, Akinge in the heade, readnes in visage, swellinge in the eine And rasinge blacknes of the towng and cadent when pia matter is hurte thowe shalte se all the foresaide tokens with those that folow he shalbe specheles and certeyn pustules and spotts shall appeare in his face, also bloode and matter shall come furthe at his eares and nosethrills

and he shalbe costiff and he shall haue colde sheveringe axes thries
or iiij tyme on the daie and this is certeyn token of deathe and is the
last of the foresaide signes and he shall not live at the most passinge
a hundreth Dayes (f. 34r).

The tokens of polipus that is curable be thees, the gobbet of fleshe is
blak and alle the nose is wonder hard and blakishe of colour and the
Gobbett fallithe not downe but remanithe aboue in the straite place
of the nose (f. 43r).

SOMETyme The heedes of the cheke bones are out of their ionte
which is knowne by thes tokens the nether tethe may not ioine with
the over closelye as they shoulde do and thus it is to be holpen (f.
44r).

Once the problem has been identified, either by means of the description or by the tokens, the surgical operation is introduced. It often implies the use of different instruments in order to draw out (5) or leave in (6) a fragment of a broken bone or even the weapon that caused it, as well as the sewing of wounds (7), cutting the infected skin (8), or putting a bone back in its place (9). Moreover, there are some surgical operations requiring a combination of different techniques: sewing and stop bleeding; opening the wound and drawing out the weapon that caused it; or healing the wound again (10).

- (5) Firste we ought to haue a pare of tonge therfore and therwith thrust the barbes of the heade together and then take fast holde by those two barbes and warely draw it furthe (f. 39r).

And if it yet stikfast then take ij holow pipes of yron or bras or two goose pens And then fast the tonge on the myddle parte of the heade and draw it owte wisely (f. 39r).

drawe it furthe if thowe maye that is to saie if yt stick not fast or if the patient blede not muche, or if thowe be not like to greve þe patient verie sore (f. 34v).

- (6) And therwith draw furthe the heade and if it cannot be drawn furthe withoute greate hevines then better is to let yt remayn within For I haue known divers persons that haue lived many yeres which haue had Arrow heades and darte heades remanyng within them (f. 38v).

- (7) Then pare awaye the pece of the pan so softelie as thowe cann then take the skyne and lay it to his place as it was at the begynninge, and sew yt to the vppermoste parte with a sharpe cnarelle neld (f. 37r).

then first sewe the mowthes of the veines together with a small nelde and as thowe shalt saw the vnder syde haue alway a threde vnder the point of thy nelde to lift it vp therwith to haue thy nelde againe at any stiche (f. 46v).

Thus oughte thow to help theim Sew the skyn with a nedle and a threde and leve a litle hole open of the wounde vnsewid by the which the wounde maye purge furthe his matter (f. 55v).

- (8) First vndo the skyn that the ballocks hingithe in and take out þe ballock then take a knife and cut the fleshe depe to thow come to the vtter skyn of the ballock stone and slaye it round aboute and cast awaie the fleshe therof (f. 65v)

then cut the skin of the bladder wher the stone lyethe with a knife and draw furthe the stone at the same hole (f. 67r)

- (9) IT HAPPENITHE oft tymes the neck bone to be of ioint wherfore the necke standithe not right And if the patient be not holpen anone he shalbe deade, Therefore ley downe the patient wyde open and the surgeon also but the patient hede must be betwene the surgeon leggs in suche manner that the surgeon feet must stand vpon the patient shoulder and the surgeon shall take the patient by bothe the paires drawing the head to him warde with all his might to bring yt to his proper place againe (f. 54v).

First thou shalt make the patient to sit vpon his ars and cause a man to hould the same legg wherof the foote is out of ioint and thou shalt take the foote and draw it in again (f. 70v).

- (10) And if the wounde blede fast thou may draw nothinge furthe at that tyme But sew vp the wounde half and leue thother half open and strew theron pulvis rubens and bynde Clowte fast therto that it blede no more And vndo it not to þe thirde daye Then draw furth that wiche ought to be drawen furthe at the open place of the wounde And after hele it as is abouesaide of other wounds (f. 46r).

The performance of these surgical operations required post-surgery care and, therefore, a treatment is provided. For the purpose, the text contains instructions to prepare diverse ointments and salves in order to heal wounds and repair the skin. These are rendered in two different ways depending on their popularity in the early Modern medical marketplace. On the one hand, when they were not known by many surgeons, the list of ingredients, together with the appropriate quantities and mode of preparation are given (11). On the other, when they were commonly used among surgeons, just their name is provided (12).

- (11) And when yt is brought into ioint , annointe yt afterward by the space of ix or x dayes with **dewti** which is callyd in latten **dealtea** And is thus mayd Take the roots of hock and the stick of them pycked owt and casten away ij pounds of lyne sede fenngreke of either j pound of the rootes of Squyllts half a pound First weshe clene the roots and stamp them with lyne sede and fenngreke and the rootes of Squilles also then ley it in viij pynts of water, iiijor daies together and On the iiij daie put them on the fyer And make yt boyle to it wax thik, and after strain yt throughe a strong canvas bagg all hote. And take of that which is straynd furthe ij pounds and put therto iiij pounds of meat oyle and make them boyle together to ther be nought seen of the iuce and then put therto a pounce of waxe and as muche butter as semithe to suffice and turpentine and galbanum and gume

of the yvie tre, of eche one of thees two vnces And at the last put powder of colophom and rosen of eche half a pound. And when all thes are molten together put them frome the fier And when it is could, put yt into boxes, and kepe to thy vse (f. 54v–55r).

- (12) and after take **pulvis affodile** and temp it with a litle hony and lay it vpon lynet and fill the hole therwith and dight it so euery day twice vnto it be hole (f. 41r).

And when the mouthe is large ynoughe then annointe thy tent and withe **vnguentum ruptorium** and so continewe to the fistule be stayne and after heale yt vp with **Vnguentum viride** (f. 52r–52v).

then put in the hole a tent annointid with swynes greace vnto þe sore send furthe matter, and after tent yt with **vnguentum fustum** (f. 55r).

One of the advantages of the new surgical texts produced in early Modern England is that authors or surgeons were not limited to the knowledge transmitted to them by means of classical authors but, on the contrary, they carried out an empirical work leading them to learn from their own mistakes as well as to provide more effective treatments for diverse health conditions. For this reason, in H135 we find some excerpts describing the various complications that may arise when performing a particular surgical operation as well as the alternative treatment to be applied in such cases (13).

- (13) And if the shafte styck fast in the hede then must the wound be made larger besyde the shafte and a tent put in the depenes that yt maye touche the yron [...] And if it leave the head behynd then ax the patient how he stode whenn he was hurte that thow may take a sercher and serche the wound within like as the arrow went in (f. 38v).

And if anythinge of the cheke bone be cankered then paire awaye so muche as is cankered And if the teithe strike in the place where the bone is cankered, then pull them furthe and pare away all the

cankered place of the bone and after heale it with unguentum viride (f. 44v).

After the application of the treatment, the author may include an efficacy phrase that will guarantee the success of that particular surgical operation.¹⁶¹ These efficacy phrases could appear in two different formats, that is, they could just confirm that a treatment has been successfully tested (14) or, on the contrary, the author could come as a report of the outcome when applied to a particular patient (15).

- (14) **This powder is goode and precieuse to strange blode and to make consolidation and hole skyn aboute a wounde** wherfore lay it aboute thy suing as I haue saide before (f. 37v).

when it is colde put it into a glasishe *which* is a **precieuse Medicine for Webbe of eyen** (f. 41v–42r)

- (15) **For phisick saithe that it is possible a man to lyve without a milt** then better he maie live with part of a mylt (f. 62v)

In relation to the structure of the medical recipes in H135, five rhetorical moves are identified, where only the title and the ingredients are obligatory:

1. Title.
2. Ingredients.
3. Application.
4. Efficacy.
5. Practitioner's personal experience.

Different approaches have been made in the literature as to the structure of recipes and their components. Thus, Alonso-Almeida and Cabrera-Abreu distinguished among title, ingredients, preparation, application (use and dosage) and statement of efficacy (2002b: 138; Stannard 1982: 60–65). Hunt, in turn, listed six different

¹⁶¹ These efficacy phrases are similar to those found in the recipes, as explained below.

components: rubric, indication, composition, preparation, application, and statement of efficacy (1990: 16–24).

The title of the recipes (Stannard's purpose and Hunt's rubric) is found in different formats in H135, including the name of the condition that is going to be treated (16) or the ointment/medicine to be prepared (17), conditional clauses (18), non-finite clauses (19) or references to previous remedies dealing with the same condition (20).

- (16) **For the canker in the mowthe** taik sage and as much of pimpernell [...] (f. 92r).
- (17) **A pretious water if thowe wilt vse it.**/ Take a handfull of weybrode one handfull of housleke . of rose meris Isole and sawge [...] (f. 75r).
- (18) For priking of a nedle pyne or thorne **if the hole be closid vp.** Take fair bultid flowre of wheat. temper it [...] (f. 81v).
- (19) **To maike a man slepe,** Take sede of lettuce and sethe it in running water and let him drinke therof last a night. (f. 78v).
- (20) **Another for the same** take a croppe of sage woormewood any herbe of grace any a hard onyon rosted half a penniworth of triacle [...] (f. 85r).

In addition, there are recipes in which the title (taken as the purpose) is provided at the very end of the recipe, as in (21) and (22).

- (21) **and it is excellent good for any evill at the harte or in the stomach or in the lights** (f. 89v).
- (22) And distill all thes sotlye together in a lymbeck. kepe this water. close **for yt will kyl. the kanker yf it be dalye wshed therwith** (f. 74r).

The ingredients are provided in different ways in the medical recipes. Thus, in the best of cases ingredients are presented with quantities, preparation and application (23), even though the recipe may be deprived of the quantities or the



preparation, or both, thus assuming that the reader was acquainted enough with the quantities and mode of preparation of those ingredients (24). In the examples below, ingredients are highlighted in bold, preparation is underlined and application is italicised. As observed, (23) contains all the necessary information for the preparation of the medicine whereas (24) lacks the information about the quantities needed for the recipe.

(23) For the dropsey take **ij gallons of Fyne ale and a porcion of green broome**, boile them to a gallon, *and let hym drinke no other drinke to be be hole* (f. 81v).¹⁶²

(24) For swelling brussing or ache Take **leaves of the read Rose and viniger and cromes of the sowrest bread that thow can get**, braye yt together and maik yt plaister like *lay yt to the sore and yt shall sone be hole* (f. 82r).

Efficacy is included in the recipe by means of efficacy phrases, normally appearing at the end of the recipe (26) but also in the very title of it (27). These components are optional and, according to Mäkinen, they are “passages [...] that testify to the value of effectiveness of the end product: the medicine itself” (2011: 158).¹⁶³ Jones (1998: 201–204) distinguishes between specific phrases, which refer to the disease being treated (25); and stock phrases, which are formulaic expressions not referring to the disease (26, 27). Mäkinen added a third type, the general efficacy phrase, which does not refer to the disease in questions nor is formulaic (28) (2011: 162).

¹⁶² It must be noted that even though the quantities of the ingredients are provided, it is not clear what the writer intends to mean by writing ‘a porcion’. This makes it clear that the writer assumes that the reader of the recipe is going to be a person acquainted with the preparation of medicines and the handling of ingredients for their preparation.

¹⁶³ In this vein, it must be noted that these efficacy phrases do not constitute the result of any systematic test of the drug whatsoever, but they may have been transmitted from scholastic scholarly texts (Mäkinen 2011: 159).

- (25) For the ytche and scubb Taik swines greas pepper small beaten and quicksilver blend them well together vntill you Can se none of the quick_silver **and that will heale a skald horse therfore I trow it healithe.**/ (f. 105r).
- (26) To slepe Taik humlocks Stampe them And lay them on your forheade frome eare to eare. **probatum est.**/ (f. 87v).
- (27) For the megrim **an excellent practise** (f. 89v).
- (28) For swelling brussing or ache Take leaves of the read Rose and viniger and cromes of the sowrest bread that thow can get, braye yt together and maik yt plaister like lay yt to the sore **and yt shall sone be hole** (f. 82r).

When it comes to the credibility of a particular medical recipe, compilers would consider it in terms of the trustworthiness of the donor and his/her experience. Thus, the social, economical and political background of the donor would be assessed (Leong and Pennell 2007: 139). There were, however, other techniques to assure the efficacy of a recipe, as in (29), where the author tells the reader about a personal experience.

- (29) **ANOTHER PRACTISE which I haue vsid myself when I was lij years ould** I began to waxe feble and sluggishe like as I should haue bene oppressid streight way with age In so much that my legs were so faint and feble and all my bodie so shugg sluggishe namelie in somer and warme wether And also I had a distillacion furthe of my head into my stomake and towards my longs or lights and my stomake not good and my meat so vnquist with me in so much when I had eaten and drunken my meal at night my face would haue Glowid with the vnquietnes of the meate and my voice whors or harsh like as I had bene half dronken and humours oft falling into my eies which maid them oft sore So that I did lyve looke to lyve and continew but few years **Therefore I devised this remedie [...]and with the said six nesis euerie morninge I did get my bodie lustie**

again And I giue almightie god thanks at the writing of this being
lxxij yers ould I was lustie of my age as any was in the citie where
I dwellid and far more lustie then I was at lij years when I begane
with the sayde practise (ff. 88v-89v).

In this recipe, the author is telling the reader how he aided his own recovery after using this recipe, whose efficacy is demonstrated by the good condition of the author, who would live for more than twenty years ‘far more lustie then I was at lij (52) years when I began with the saydd practise’.

The analysis of text structure in both the surgical treatise and the collection of recipes has demonstrated that the former is more complex than the latter for several reasons. As shown in Table 5.4, both texts share some rhetorical moves, as the title or description of the problem, the efficacy phrase and the practitioner’s personal experience. However, there are some reasons supporting the higher complexity level of the surgical treatise as opposed to the recipe collection.

Surgical treatise	Recipe collection
1. Description of the problem	1. Title
2. Tokens of the the disease/bad condition	2. Ingredients
3. Surgical operation	3. Application
4. Wound healing	4. Efficacy
5. Likely complications	5. Practitioner’s personal experience
6. Alternative wound healing	
7. Efficacy phrase	
8. Surgeon’s personal experience	

Table 5.4. Rhetorical moves in the texts in H135

First, the application of Swales’s (1990) *move analysis* has shown that the surgical treatise contains almost twice as many moves as the collection of recipes. This implies that the text structure of the surgical treatise is more elaborated, and therefore more complex, than that of the collection of recipes. This higher



number of moves makes the description of each surgical operation considerably longer than any of the medical recipes, requiring more processing on the part of the reader. In addition, the average number of rhetorical moves in the surgical treatise almost doubles that in the collection of medical recipes (5.5 and 3.6 respectively).

Second, the title of surgical operations (move 1: description of the problem) is often much more elaborated than the title of recipes, where only the name of the ailment is provided. This difference is perfectly understandable considering the different readership of these two different text types. On the one hand, surgical treatises were read by surgeons and barber surgeons, who were established in a kind of limbo between professional and amateur practitioners, hence the technical nature of these texts (detailed descriptions making use of anatomical terms, surgical instruments, etc.). Medical recipes, on the other hand, were distributed among lay people, who rarely had access to learned treatises but possessed a considerable knowledge on popular remedies, that is why the name of the ailment is enough for them to identify it.

Finally, the third reason has to do with the complexity of the texts, which undoubtedly has an effect on their different levels of linguistic complexity. The difficult performance of many of these surgical operations makes their explanations unpredictable in terms of their structure. Thus, whenever a surgical operation can pose a difficulty, that difficulty is described and an alternative wound healing is provided, making the instructions longer. In the case of the medical recipes, however, we have amateur remedies against common illnesses or bad health conditions, where the structure is totally predictable and only small aspects such as quantities or preparation can be missing.

5.3.1.2. Text layout

The present section evaluates the visual features of the texts in order to ascertain whether they contribute to the level of linguistic complexity.¹⁶⁴ The analysis of the text as an object includes script, colour, layout as well as tables of contents and running titles (Carroll et al. 2013: 55).

If we consider H135 as an object, it has already been mentioned that it contains three different indexes, which tell us about the different preferences of the people who owned the manuscript. After that, both the surgical treatise and the collection of recipes are similar in some aspects and different in others regarding the text layout.

Figure 5.1 shows the first folio of the surgical treatise. As shown, the title ('Liber Primus') appears in Latin and tells the reader that what begins is the first book. Interestingly enough, it is easily appreciated as the title is rendered with a larger, more elaborated script than the running text, catching the attention of the reader.¹⁶⁵ In the same way, at the end of every book there is a similar text indicating the conclusion of that book.

¹⁶⁴ Among the factors that could interfere with the visual aspect of the page, the most important were time and money available, the producers' expertise, the technology used and the material employed (Partridge 2011).

¹⁶⁵ See Chapter 2, Section 2.3.1.2 for an account of these instances of elaborated script.



Fig. 5.1. f. 34r



Fig. 5.2. f. 45v

In addition, there is a small space between one surgical operation and the other, where the first words are also highlighted.¹⁶⁶ Even though the different sections are signalled by way of spacing and a bigger script, it is often difficult to identify quickly what is written in those sections, as there is usually no clear title allowing the reader to look for the desired excerpt. A clear example is Figure 5.2, where we see the beginning of a paragraph in which the words 'Oft tymes' are highlighted, but no information about the topic being commented is offered. This clearly implies a greater effort on the part of the reader in order to get the message of the text, hence increasing the level of linguistic complexity.

In order to overcome this difficulty, later owners of the manuscript added marginalia in order to clarify this making the manuscript easier to use. Figures 5.3 and 5.4 are an example of this, where a clear and concise title has been inserted

¹⁶⁶ Note that the highlighting of the first words of each section is not systematic, as there are many sections where it is not carried out.

in the margins so that the reader can easily navigate through the folios of the manuscript in search of a particular section.¹⁶⁷

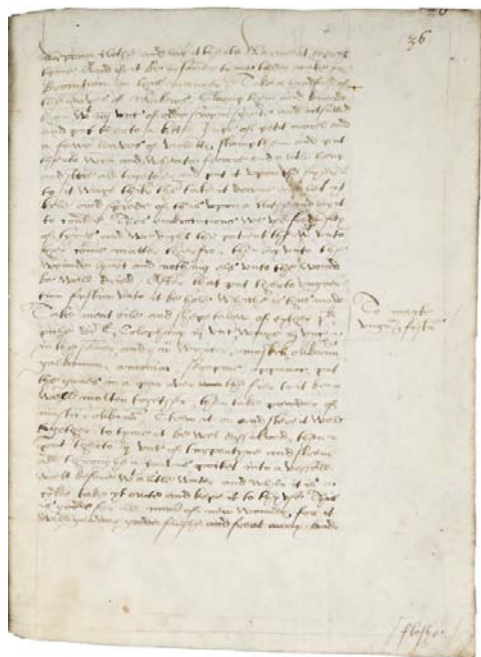


Fig. 5.3. f. 36r

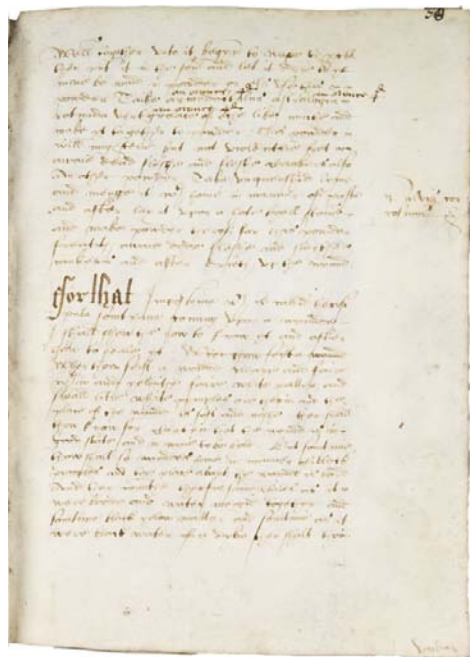


Fig. 5.4. f. 58r

This practice is also found in the visual layout of the collection of recipes, although these are introduced by a short preface foretelling the content of what comes after (Figure 5.5). The text is rendered with an elaborated script which allows the reader to differentiate it from the running text, from which it is also well separated.¹⁶⁸ Prefaces have been defined by Genette as “every type of introductory (preludial or postludial) text, authorial or allographic, consisting of a discourse produced on the subject of the text that follows or precedes it” (1997: 161). In fact, the existence of this preface eases the understanding of the text, as

¹⁶⁷ As observed, the marginalia inserted in Figures 5.2, 5.3 and 5.4 are rendered with Hands C, A and B, respectively, pointing to the fact that each of the owners of the manuscript would add what they considered necessary for the correct use of the manuscript.

¹⁶⁸ According to Genette, “it is these particular features what makes turn these excerpts from text into paratext” (1997: 162).

the reader is informed of the content in just a few lines, lowering the level of linguistic complexity.

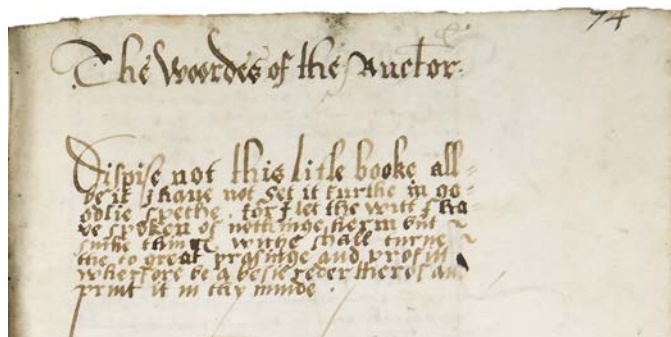


Fig. 5.5. Preface in the recipe collection (f. 74r)

Regarding the structuring of the recipes, these are separated by a space, making them quickly identifiable in the page. Moreover, the title of the recipe may appear in three different positions: 1) in a separate, centred line before the recipe (Figure 5.6); 2) with an elaborated script that is part of the recipe (Figure 5.7); and 3) in the marginalia (Figure 5.8).¹⁶⁹ Of these, the most common title is 2), while 1) and 3) appear marginally with just 15 and 38 instances, respectively. The different rendering of titles suggests that the scribe did not care much about their position or significance in the page, being just limited to copying the recipes as they appeared in the source text.

¹⁶⁹ It must be noted that these titles in the marginalia are made by Hand A, meaning that they were intended to be there since the creation of the volume. There are other instances, however, that have been added by later hands.

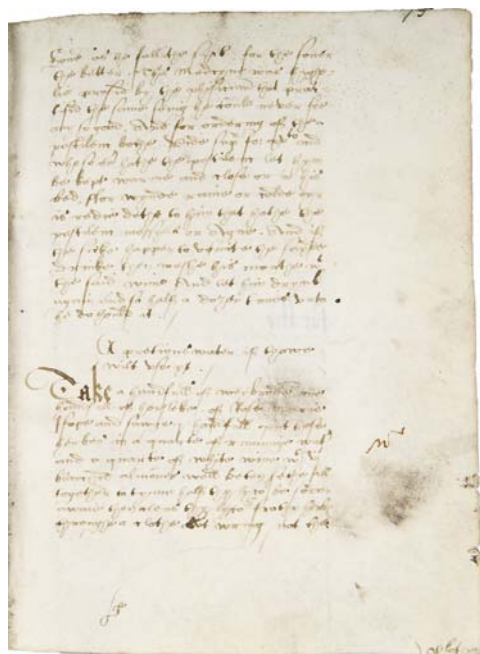


Fig. 5.6. f. 75r

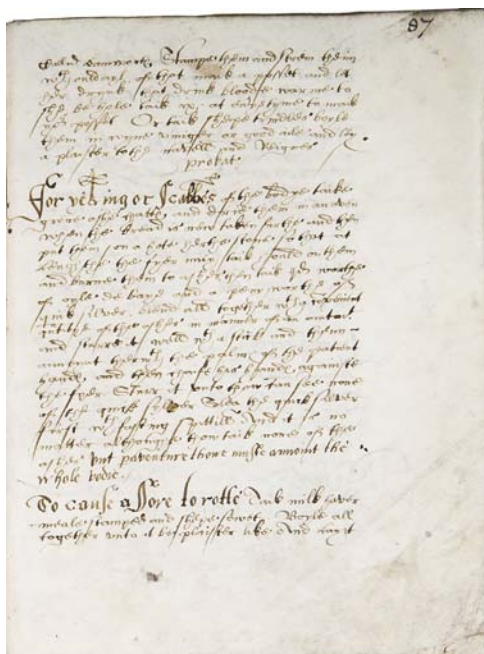


Fig. 5.7. f. 87r

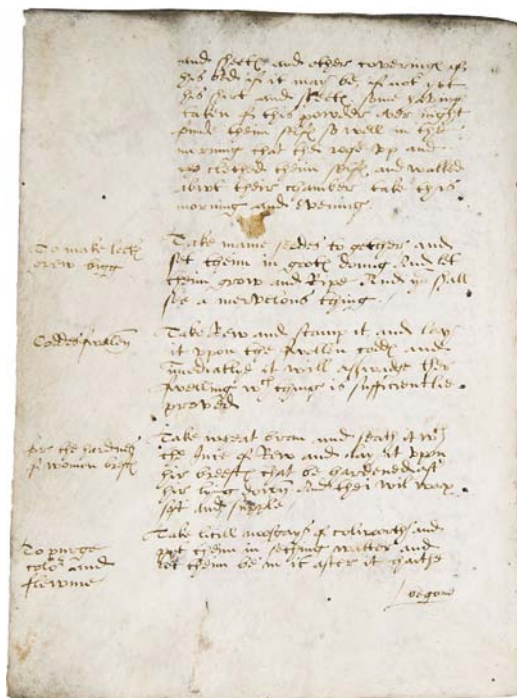


Fig. 5.8. f. 117v

Once the text layout in the surgical text and the collection of remedies has been described, it is observed that the former is more complex than the latter for some reasons. First, the surgical treatise lacks a prologue or introductory note that explains the content of what follows, the reader starting the text with no knowledge of the topic whatsoever. The recipe collection, in turn, does contain a short preface that explains its contents. Second, paragraphs are considerably longer in the surgical treatise, hence the need of more time to process the information on the part of the reader. Finally, as for the title of the surgical operations and the remedies, the former have been observed to be less specific than the latter, and this makes it more complicated to search for different excerpts in the text.

5.3.2. Microlinguistic factors

The present section focuses on the frequency of a set of linguistic features associated with linguistic complexity (see Table 5.3). For the purpose, Section 5.3.2.1 explains the methodology followed to carry out such an analysis; Section 5.3.2.2 analyses the linguistic features associated with reduced linguistic complexity; and Section 5.3.2.3 deals with the linguistic features associated with increased linguistic complexity.

5.3.2.1. Methodology

From a methodological standpoint, three different stages could be distinguished. First, the manuscript was transcribed following semi-diplomatic conventions. For the purpose, high-resolution images of the manuscript were used and, in order to decipher the script in some damaged folios, the original witness was examined *in situ* at Glasgow University Library (see Chapter 3 for the editorial conventions). Second, the early Modern English spelling of the transcribed text was normalised to PDE so that a PDE automatic POS-tagger could process it. This allowed us to POS-tag the text in order to make automatic searches and retrieve linguistic information (for an account of the process, see Chapter 4). Finally, the POS-

tagged text was used as the input to assess the frequency of linguistic features that are associated with linguistic complexity.¹⁷⁰ However, these automatic searches required a manual post-editing phase so as to discard all those instances beyond the scope of the present research. Finally, the results were normalised to tokens per 1,000 words for the sake of comparison.¹⁷¹

5.3.2.2. Linguistic features associated with reduced complexity

As stated in section 5.1, Biber (1992: 140) identified six linguistic features belonging to three discourse functions related with reduced complexity (Table 5.2): structural reduction, less specified reference and fragmented structure. It must be noted that some of the linguistic features mentioned by Biber (1992) have not been found in our material, either because they are not characteristic of these text types or because they were rarely used (or not used at all) in the early Modern English period. Consequently, only the features related with less specified reference and fragmented structure were retrieved.

5.3.2.2.1. Less specified reference

The linguistic features related to less specified reference are Pro-verb *Do* (20), pronoun *it* (21) and the use of demonstrative pronouns (22) (Biber 1992: 140):

- (30) make a greate shorte tente wett with the same and put in the nose **do**
so euery daye to it be hole (surgical treatise, f. 43r).

then put therin a lynnen clothe and lay it hote to the papp and **do** so
often (medical recipes, f. 102r).
- (31) And when **it** beginnithe to cole in the water , then knede **yt** betwixte
thy hande (surgical treatise, f. 35r).

¹⁷⁰ These automatic searches were made by way of *AntConc 3.4.4* (Anthony 2014).

¹⁷¹ According to Biber, “individual texts can be compared in terms of their dimension scores, and registers can be compared in terms of their mean dimension scores” (1992: 150).

Sturr **it** vnto thow can see none of the quick sylver (medical recipes, f. 87r).

- (32) menge **thes** alltogether and make therof a powder which powder menge with the foresayde licour (surgical treatise, f. 35r).¹⁷²

Seithe **those** together and meddle them with holie water and drink it first and last thre daies (medical recipes, f. 87r).

Pro-forms (20) are expressions used for “recapitulating or anticipating the content of a neighbouring expression, often with the effect of reducing grammatical complexity”, facilitating sentence connection (Quirk et al. 1985: 76). In the particular case of *do*, it originated in Middle English, when it could be used for the replacement of a lexical verb used in the preceding clause (Fischer 1992: 268). This substitution can be a verb phrase as well as a verb phrase and all that comes after it, thus “reducing the informational density of a text and indicating a lesser informational focus” (Biber 1989: 226).¹⁷³ Furthermore, recent research on register variation has demonstrated that these structures are commonly used in face-to-face communication, as speakers share the situational context and have the possibility to clarify the message immediately (Biber et al. 1999: 432). As shown in the examples, pro-verb *do* is used to refer to a whole previous explanation, allowing the reader to save time in processing the intended message.

The use of the pronoun *it* is the second linguistic indicator associated with less specified reference. The third person pronoun is different from the others as it is characteristically used in anaphoric expressions, while the others are generally

¹⁷² Even though the words ‘these’ and ‘those’ are acting as pronouns, *CLAWS* tags them as plural determiners (DD2), as the software lacks a tag for this use. In order to retrieve the instances with a pronominal function, all determiners were retrieved and they were subsequently classified so that only the pronouns are included in the counting.

¹⁷³ According to Biber, this is the result of “processing constraints or a higher concern with interpersonal matters” (1989: 226). In addition, Huddleston and Pullum argue that, when combined with *so*, it is slightly more formal than when standing alone (2002: 1529).

used deictically (Lass 1992: 147–148; Huddleston and Pullum 2002: 1468).¹⁷⁴ It can refer to nouns, phrases and whole clauses when the parts of speech to which it refers can be easily identifiable by means of the surrounding context or when it is unknown or general (Biber et al. 1999: 70). Chafe and Danielewicz associate this lack of referential splicitness to the spoken register as speakers have usually limited time to produce the utterances, hence the use of neuter pronouns such as *it*, increasing the vagueness of the text but at the same time boosts the production (1986: 90; see also Biber 1986).¹⁷⁵

The third linguistic indicator is the use of demonstrative pronouns that, according to Biber, can “refer to an entity outside the text, an exophoric referent, or to a previous referent in the text” (Biber 1989: 226; see also Huddleston and Pullum 2002: 1504–1509), that is, they may be used deictically or anaphorically. In the texts analysed in the present study, only anaphoric uses are witnessed, as we are dealing with a written source.

Table 5.5 shows the distribution of these three linguistic indicators of less specified reference. As observed, they are more widely distributed in medical recipes as opposed to the surgical treatise. This is understandable if the particular features of each text type are taken into account. Even though surgical treatises were becoming independent of the classical texts on which they were based (i.e.

¹⁷⁴ Deixis occurs when the reference of a given expression is determined by the utterance-act (time, place, etc.), i.e. *I bought a new stereo system yesterday*. Anaphora, in turn, occurs when the reference of a given expression is determined via an antecedent, i.e. *Max claims he wasn’t told about it* (Huddleston and Pullum 2002: 1451–1453).

¹⁷⁵ Chafe and Danielewicz also argue that “the antecedent of a pronoun has been spelled out in an earlier noun phrase. Sometimes, however, and specially in speaking, there is no such clear antecedent” (1986: 90). The reason for the non-existence of the antecedent lies in the fact that, by way of sharing the situational context, speakers can make their message clear at any moment. When writing, on the contrary, the writer has to make sure he/she includes all the referential information so that the reader does not get lost.

empiricism vs. scholasticism), they still preserve the structural conventions of its text type. Recipes, on the contrary, were read and produced by lay people, thus featuring a language resembling the spoken register (face-to face conversations to name but one). This is supported by the wider distribution of pro-verb *do*, pronoun *it* and demonstrative pronouns in the medical recipes (*n.f.* 0.6, 40.3 and 4.9 over 0.4, 29.8 and 2.8, respectively).¹⁷⁶

Linguistic features	Surgical treatise		Medical recipes	
	Raw	n.f.	Raw	n.f.
Pro-verb Do	7	0.4	11	0.6
Pronoun It	572	29.8	784	40.3
Demonstrative pronouns	54	2.8	95	4.9
Total	633	33	890	45.8

Table 5.5. Less specified reference in H135

5.3.2.2.2. Fragmented structure

The level of fragmented structure is quantified by means of the frequency of clausal coordination in the texts (Biber 1992:140). Coordination represents syntactic arrangement by parataxis, where equal clauses with the same syntactic role are combined (Quirk et al. 1985: 918; Biber, Connor and Upton 2007: 79). In Chafe (1982: 38), fragmentation is identified with the agglutination of idea units without connectives, although it is also argued that new idea units¹⁷⁷ are frequently introduced with coordinating conjunctions, *and* being the most frequent.

Biber et al. (1999: 144–145) links coordination to orality (i.e. conversations) and subordination to literacy (i.e. research articles), a fact that can be as well supported from a diachronic point of view. Thus, Kohnen

¹⁷⁶ In this table and the following ones, n.f. stands for ‘normalized frequencies’.

¹⁷⁷ Idea units are “spontaneous, unplanned spoken language [...] produced in a series of spurts” (Chafe 1985: 106).

carried out an analysis of the distribution of coordinators and subordinators in Middle and early Modern English sermons. According to this study, the distribution of coordinators decreases in the early Modern English period, a fact coinciding with a spread of subordinators (2007: 294).¹⁷⁸ The reasons for such a pattern change lie in the fact that literacy increased in the early Modern English period, hence the wider distribution of mechanisms related to written registers (i.e. subordination). In addition, there is corpus evidence supporting that, between the seventeenth century and today, “medical, science and legal prose developed to become highly specialised registers [evolving] towards ever more ‘literate’ styles” (Biber and Finegan 1997: 269).

(33) Withe dewte **and** spelte it againe **and** so euerie daie once vnto viij daies be passid **and** thenn by the grace of god he shalbe hole (surgical treatise, f. 57r).

but thow had nede to sow those vpon a bed in thy garden **and** then remove them the first or second year there thow wilt haue them (medical recipes, f. 111v).

As shown in Table 5.6, clausal coordination is more widely distributed in recipes as opposed to the surgical treatise. The reasons for such a distribution could be explained from the perspective of text structure, as the recipes exclusively contain instructions for the preparation of remedies, where the coordinator *and* is frequently used to link the different steps within the recipe. Thus, if this is taken into account to measure linguistic complexity, medical recipes are less complex inasmuch as clausal coordination is more widely distributed.

¹⁷⁸ Kohnen argues that “the decline of coordinators may indicate a change from the ‘rumbling’ or ‘additive’ style noted by many scholars in late Middle English sermons and homilies to more structured and elaborate patterns of presentation in early Modern English” (2007: 294).

Linguistic features	Surgical treatise		Medical recipes	
	Raw	n.f.	Raw	n.f.
Clause coordination	107	5.6	166	8.5

Table 5.6. Fragmented structure in H135¹⁷⁹

5.3.2.3. Linguistic features associated with increased complexity

The linguistic features associated to complexity amount up to 27, which are classified into four different groups: 1) integrated structure; 2) lexical specificity; 3) passive constructions; and 4) dependent clauses.

5.3.2.3.1. Integrated structure

The level of integrated structured is calculated by way of the frequency of nouns, prepositions, attributive adjectives, nominalizations and phrasal coordination. These constituents indicate a “high informational focus and a relatively dense integration of information in a text” (Biber 1992: 145).¹⁸⁰

The frequency of nouns in different registers was approached by Biber et al., who demonstrated that they are by far the most frequent lexical word class, being the most common in news and, to a lesser extent, academic prose (1999: 65–66; see also Huddleston and Pullum 2002: 526).¹⁸¹ This distribution is understandable as the focus in these text types is on the transmission of information. In the case of the analysis that concerns us in the present section, it

¹⁷⁹ Previous studies (i.e. Meurman-Solin 2007: 255–288) recommend the inclusion of a wide range of connecting devices in order to carry out a proper analysis of clausal coordination. In the present study, however, this analysis has been restricted to the distribution of coordinator *and*, as other coordinators occurred marginally.

¹⁸⁰ Discourse with informational purposes has been associated with carefully planned utterances (Biber 1988: 79–97).

¹⁸¹ It was found that in news reports and academic prose, there are three to four nouns per lexical verb. In conversations, however, nouns present a low frequency that signals a lower density of information and coincides with a higher frequency of pronouns (Biber et al. 1999: 65–66).

is observed that the frequency of nouns is somewhat balanced in both text types, being slightly higher in the recipes. Even though surgical treatises are considered to be academic material, recipes (i.e. a more informal register *a priori*) show a higher frequency of nouns (*n.f.* 31.2 over 29.5), a fact that is not surprising as they consist of long lists of plants and substances needed to prepare remedies.

Adjectives may be defined as “a syntactically distinct class of words whose most characteristic function is to modify nouns” (Huddleston and Pullum 2002: 527). When it comes to linguistic complexity, attributive adjectives have been found to have an influence, as they are “highly integrative in their function”, expanding and elaborating the information presented in a text (Biber 1989: 237). Regarding their occurrence across different registers, they have been found to occur more frequently in academic prose, contrasting with their low frequency in conversation (Biber et al. 1999: 65).¹⁸² As observed in Table 5.7, the occurrence of adjectives is significantly lower if compared with nouns. The reasons for such a distribution could lie in the fact that, even though both text types contain a high proportion of nouns, the scribe did not consider adjectival complementation necessary on many occasions, not increasing the linguistic complexity.

Prepositions have also been included for measuring the level of integrated structure of texts. These are words that “govern, and normally precede, a noun or pronoun and which express the latter’s relation to another word” (Huddleston and Pullum 2002: 600; see also Biber et al. 1999: 70; Yáñez-Bouza 2015: 1–11). With reference to their functions in discourse, prepositions have been found to expand the information contained in an idea unit. When it comes to the use of prepositions in the texts under analysis, it is witnessed that they occur more widely in the surgical treatise (*n.f.* 165.7). This indicates that they present a higher

¹⁸² According to Biber et al., “the greater frequency of adjectives in the written registers, especially in an attributive role, reflects the heavy reliance in noun phrases to present information” (1999: 506).

level of linguistic complexity, as early Modern English surgical treatises often combine elements belonging to the learned tradition as well as their own experiences.¹⁸³ This leads to a text type which is full of descriptions and advice, together with instructions for the preparation of remedies, and this use of preposition certainly helps arrange this kind of information.

Nominalizations have been traditionally considered a distinctive feature of scientific writing, where they allow for the packing of information and the expansion of units (Biber 1988: 227; Banks 2001, 2003, 2005; Bello 2016). As Halliday points out, this was a significant feature of the scientific writings produced in the seventeenth century,

Thus, the device of nominalizing, far from being an arbitrary or ritualistic feature, is an essential resource for constructing scientific discourse. We see it emerging in the language of this period, when foundations of an effective register for codifying, transmitting and extending the ‘new learning’ are rapidly being laid down (1988: 169).

Nominalizations have been found to serve three purposes: two grammatical and one semantic. In the grammatical side, on the one hand, nominalizations allow for the addition of modifiers and quantifiers to the nominalized process (i.e. *the government announced new benefits* vs. *the government’s announcement of new benefits*); as well as the use of the nominalized process as subject, complement, etc. (i.e. *the announcement was put off* vs. *we did not hear the announcement*). In the semantic side, on the other, the process becomes more ‘thing-like’ after the nominalization (Banks 2005: 350). In H135, nominalizations show different distributions in the two text types under analysis. Thus, they occur more widely in the surgical treatise than in the collection of recipes (*n.f.* 165.7 over 103.2,

¹⁸³ In his categorization of English text types, Biber (1986) found that prepositions are frequently witnessed in combination with nominalizations and passives in academic prose, official documents, professional letters and other informational types of written discourse.

respectively). This means that in the surgical treatise the information is better integrated and packed and, consequently, the level of linguistic complexity is higher.

Phrasal coordination is the last feature associated with integrated structure, where it is found to serve the expansion of idea units, as observed in (34) (Biber 1988: 245; see also Chafe 1982, 1985). In this vein, the surgical treatise is again more complex than the collection of recipes, as phrasal coordination is more widely attested (*n.f.* 61.8 over 42.4, respectively).

- (34) the pen may thrust downe the fleshe vpon the neld and thow must thrust **boldly and hard** for thow shalt perceve it to require a greate thrust (surgical treatise, f. 38r).
- then put to yt soome cornes of **salt and a lytill commyn** cut small and mynced (medical recipes, f. 118r).

To sum up, the present section has evaluated five different linguistic features identified as markers of integrated structure, where different tendencies have been observed. First, the distribution of nouns and attributive adjectives is somewhat balanced in both text types, even though the surgical text was expected to show a wider distribution of these items, being a more academic piece of writing. However, the long list of ingredients contained in many of the medical recipes has plausibly levelled the distribution of nouns and attributive adjectives in both text types. Second, nominalizations are slightly higher in the surgical treatise, although it must be noted that their distribution in the medical recipes has been higher than expected. Third, the distribution of prepositions and phrasal coordination is overwhelmingly higher in the surgical treatise, evincing a more elaborated structure of this text type.



Linguistic features	Surgical treatise		Medical recipes	
	Raw	n.f.	Raw	n.f.
Nouns	4,126	214.9	4,344	223.5
Prepositions	3,182	165.7	2,006	103.2
Attributive adjectives	567	29.5	607	31.2
Nominalizations	121	6.3	86	4.4
Phrasal coordination	1,186	61.8	823	42.4
Total	9,182	478.2	7,866	404.7

Table 5.7. Integrated structure in H135

5.3.2.3.2. Lexical specificity

Word length and type/token ratio are indicators of lexical specificity, indicating “potential and actual lexical variety”, respectively (Finegan and Biber 2001: 258). From a register perspective, high levels of lexical variety are usually found in academic writing, being more restricted in the spoken domain due to the time requirements of on-line production (Biber 1988: 238; see also Biber 1986; Chafe and Denielewicz 1986). Table 5.8 shows the scores of mean word length and type/token ratio in the texts under study, where it is found that potential lexical variety, i.e. word length, is operating roughly at the same levels in the surgical text and the collection of recipes (4.06 and 3.96, respectively). However, when it comes to lexical variety, i.e. type/token ratio, the collection of recipes shows a higher figure if compared to the surgical treatise (11.2 over 9.5). This could be explained if the particular characteristics of each text type are considered. Thus, recipes feature more lexical variety as they include long lists of ingredients that are necessary for the preparation of remedies (see 5.3.2.3.1 above for a similar phenomenon).

Linguistic features	Surgical treatise	Medical recipes
Mean word length ¹⁸⁴	4.06	3.96
Type/token ratio	9.5	11.2

Table 5.8. Lexical specificity in H135¹⁸⁵

5.3.2.3.3. Passive constructions

Passive constructions are mechanisms that allow for information packaging,¹⁸⁶ where the subject is associated with a patient role, receiving the action of the verb. In this kind of constructions, the subject is “demoted or dropped altogether, resulting in a static, more abstract presentation of information” (Biber 1988: 228; Huddleston and Pullum 2002: 1365; Toyota 2005: 319). This has traditionally been identified as characteristic of the scientific register, together with the use of static verbs and impersonal constructions (Dorgeloh 2005: 85; see also Atkinson 1996: 340–346).¹⁸⁷ Thus, these contribute to linguistic complexity inasmuch as they are the surface complex representation of a simpler counterpart with the same meaning. In H135, instances of agentless passives (34) and *by*-passives (35) have been found.

- (34) then ax the patient how he stode whenn **he was hurte** that thow may take a sercher and serche the wound within (surgical treatise, f. 38v).

This is provid often tyme for truthe (medical recipes, f. 96v).

¹⁸⁴ The calculations of word length have been carried out in *WordSmith 7* (Scott 2017).

¹⁸⁵ Note that these figures have not been normalised, as they are individual counts of each text under study.

¹⁸⁶ Information packaging structures have usually a “syntactically more basic counterpart differing not in truth conditions or illocutionary meaning but in the way the informational content is presented” (Huddleston and Pullum 2002: 1365).

¹⁸⁷ Academic writing is the register with the highest frequency of passive constructions, occurring about 12,000 times per million words (Biber et al. 1999: 476).

- (35) SOMETYME The heedes of the cheke bones are out of their ionte
which is knowne by thes tokens (surgical treatise, f. 44r).

This medcyme was highelie prasid by the phisician that practisid the
 same seing he could never see any so good (medical recipes, f. 75r).

As shown in Table 5.9, agentless and *by*-passives occur more than twice as many times in the surgical treatise as in the collection of recipes (*n.f.* 15.6 over 5.9 and 0.6 over 0.1, respectively). This demonstrates that the former presents a more complex information structure than the latter,¹⁸⁸ as passives, being a more elaborated version of an utterance, require more processing effort on the part of the reader. In addition, passives make the focus shift from the subject to the object, a typical feature of academic writing.

Linguistic features	Surgical treatise		Medical recipes	
	Raw	n.f.	Raw	n.f.
Agentless passives	299	15.6	115	5.9
<i>By</i> -passives	11	0.6	2	0.1
Total	310	16.2	117	6

Table 5.9. Passive constructions in H135¹⁸⁹

5.3.2.3.4. Dependent clauses

The frequency of embedded or dependent clauses also contributes to the increase of linguistic complexity. Depending on their nature, these may accomplish different functions in discourse and, therefore, they have been subdivided into

¹⁸⁸ According to Lambrecht, “information-structure analysis is centered on the comparison of semantically equivalent but formally and pragmatically divergent sentence-pairs, such as active vs. passive” (1994: 6; see also Seoane 2012).

¹⁸⁹ Agentless passives and *by*-passives have been also labelled as short passives and long passives, respectively (Biber et al. 1999: 475).

structural elaboration on reference, complement clauses, attitudinal clauses, adverbial clauses and participial clauses.¹⁹⁰

5.3.2.3.4.1. Structural elaboration on reference

The structural elaboration on referent is measured by means of the frequency of different instances of relatives (see Table 5.10). Relatives are finite post-modifying clauses that allow for the addition of new information about the antecedent (Biber et al. 1999: 195; Hundt, Denison and Schneider 2012: 210). According to Biber and Conrad, these structures are devoted to explain and expose information, and they are certainly “complex syntactic constructions, difficult to produce in real-time situations, but well-suited to the focused informational purposes of textbooks” (2009: 67).¹⁹¹

Five different constructions have been taken into account in the present study: *wh*-clauses in subject position, *wh*-clauses in object position, “pied piping” relative clauses, *that* relative clauses in subject position and *that* relative clauses in object position. In our data, only the last three constructions have been found, whose frequencies are represented in Table 5.10.

“Pied piping” relative clauses (36) are constructions where the linking relative appears together with a preposition (*on whiche / after which*), making reference to a noun in the main clause (*eer / space*). These constructions are employed to expand the information given to the reader, the relative clause adding information about the antecedent. In our data, these constructions occur more than twice as many times in the surgical treatise as in the collection of recipes (*n.f.* 0.6 over 0.2, respectively), meaning that the former feature a more

¹⁹⁰ No instance of attitudinal clause was found in our data, hence the impossibility of its analysis.

¹⁹¹ Chafe (1982, 1985) has also identified these structures as devices for integration and idea unit expansion.

information-oriented structure and, therefore, a higher level of syntactic complexity.

- (36) Then streyne yt throughe a clothe and put of this oyle euey daye warme ones into the sonne eer, **on whiche** syde the waxe kyrnells bredithe (surgical treatise, f. 51r).

then by a convenient space **after which** may be as I suppose thre or iiij^{or} howres gyve him this powder folowing (medical recipes, ff. 84r–85v).

The occurrence of relative clauses in subject (37) and object (38) position also contributes to a high level of syntactic complexity. These structures have the same functions as (36): the expansion of idea units. Thus, these mechanisms serve to incorporate extra information to the text. In our data, *that* relative clauses in subject position show a slightly higher occurrence in the medical recipes as opposed to the surgical treatise (*n.f.* 1.7 over 1.2, respectively). The distribution of *that* relative clauses in object position, in turn, are more widely found in the surgical treatise than in the medical recipes (*n.f.* 2.1 vs. 1.3, respectively).

- (37) when pia matter is hurte thowe shalte se all the foresaide tokens with those **that** folow he shalbe specheles and certeyn pustules and spotts shall appeare in his face (surgical treatise, f. 34r).

TO KILL A RINGE WORME SCABBE crewlls or any suche other prowde felon **that** yekethe and waterithe (medical recipes, f. 74v).

- (38) then shalt thou first cut the vttermost skyne on crose wise and the hole gobbet **that** thow fyndest therin (surgical treatise, f. f. 41r).

Take leaves of the read Rose and viniger and cromes of the sowrest bread **that** thow can get (medical recipes, f. 82r).

The quantitative analysis of these three linguistic features evinces that the surgical treatise shows a more complex structural elaboration on reference. Even though the medical recipes show a wider distribution of *that* relative clauses in subject

position, the counting of the three linguistic features together demonstrates that the surgical treatise is linguistically more complex with regard to structural elaboration on reference.

Linguistic features	Surgical treatise		Medical recipes	
	Raw	n.f.	Raw	n.f.
Wh-relative clauses in subject position	-	-	-	-
Wh-relative clauses in object position	-	-	-	-
“Pied piping” relative clauses	11	0.6	4	0.2
That relative clauses in subject position	23	1.2	33	1.7
That relative clauses in object position	40	2.1	26	1.3
Total	74	3.9	63	3.2

Table 5.10. Structural elaboration on reference in H135

5.3.2.3.4.2. Complement clauses

Complement clauses are “a type of dependent clause used to complete the meaning relationship of an associated verb or adjective in a higher clause” (Biber et al. 1999: 658).¹⁹² There are various kinds of complement clauses with different purposes: *wh*-clauses can express an indirect question (*wh*-interrogative clause, i.e. *Jill was asking what happened*) or a relative clause (nominal relative clause, i.e. *Burbidge road is where Carlos used to live*); *that*-clauses are employed to report the speech, thoughts, attitudes, or emotions of humans (i.e. *I think Stuart’s gone a bit mad*); and infinitive clauses can report speech and cognitive states (i.e. *I’m just trying to get away early*) (Biber et al. 1999: 657–697).

¹⁹² Huddleston and Pullum label them as “expanded declaratives” or *that*-declaratives. When complementizer *that* is omitted, they label them “bare declaratives” (2002: 951). For a study on the alternance of *that* and *zero* in early English medical writing (1350–1700), see Calle-Martín and Romero-Barranco (2014).

- (39) and sometime black yellow matter and sometime as it were black water of a dybe then shalt thow Vnderstand **that** the wound is appostemid (surgical treatise, ff. 58r–58v).

but the more bread and vinager thow casts in the febler is the plaister I Counsell **that** thowe set muche by this plaister for it hathe bene ofte proved but lay it not to all Sores (medical recipes, f. 96v).

- (40) And if it be so depe **that** the larde cannot reche the Bottome Then take a tent of linnen clothe and anoynt it aboute with swynes grece (surgical treatise, f. 38v).

And therfore the patient when his lights have lyen ydle so long **that** nature can suffer no longer then for want of breathe (medical recipes, f. 88r).

- (41) And thowe may take a goose pen beyng open at the end **to thrust** again the neld poynt vpon the skyne syde so that the neld may enter into the pen (surgical treatise, f. 37v).

Put this water into a glasse and kepe it for yt is a verie good water **to washe** therwith any sore and namelie a sore legg and will heale yt without any other salve (medical recipes, f. 75v).

As for the functions of these clauses at discourse level and their influence on linguistic complexity, these have been identified as mechanisms which allow for integration and idea unit expansion (Biber 1988: 231; Chafe 1982, 1985). Furthermore, these devices are more prone to be witnessed in planned written registers.¹⁹³ As shown in Table 5.11, the surgical treatise outnumbers the collection of recipes in the frequency of these complexity features, which are indicators of planned and elaborated discourse.

¹⁹³ Note that *wh*-clauses have not been found in our data.

Linguistic features	Surgical treatise		Medical recipes	
	Raw	n.f.	Raw	n.f.
<i>Wh</i> clauses		-		-
<i>That</i> complement clauses to verbs	12	0.6	3	0.2
<i>That</i> complement clauses to adjectives	9	0.5	5	0.3
Infinitives	384	20	332	17.1 ¹⁹⁴
Total	405	21.1	340	17.6

Table 5.11. Complement clauses in H135

5.3.2.3.4.3. Adverbial clauses

Adverbial clauses also add information to main clauses, and they do so in the manner of adjunct or disjunct. While the former denotes circumstances of the situation in the main clause, the latter informs about the style or form of what is said in the main clause. There are various subclasses of adverbial clauses ranging from condition or reason/cause to concession, among others (Quirk et al. 1985: 1070–1118).¹⁹⁵ These three kinds of adverbial clauses, together with a general category including all the others, were identified by Biber (1988: 235–236) as potential indicators of linguistic complexity.¹⁹⁶

Adverbial clauses of condition express direct condition, that is, what is being said in the main clause is conditioning what is being expressed in the

¹⁹⁴ The number of infinitive clauses in the collection of recipes was originally higher, as these appeared in the title of the recipes. In order to make this analysis as accurate as possible, these were calculated finding that, after having discarded them, the infinitive clauses in the collection of recipes amounted up to just *n.f.* 17.1.

¹⁹⁵ Conditional clauses are found to be most common in conversation, and moderately common in academic writing; cause clauses in conversation; and concessive clauses in written registers (Biber et al. 1999: 820–821).

¹⁹⁶ Biber et al. (1999: 776) label these contingency adverbials under the category of circumstance adverbials. Other circumstance adverbials are those expressing, time, place, process, extent/degree or addition/restriction, among others.

subordinate clause (i.e. *If you don't study, you won't pass the exam*). In medical writing, these clauses may describe a physical state with a subsequent specific treatment (42), or the quantity of produced medicine if a series of steps are followed (43). From a quantitative point of view, these sentences are more frequently found in the collection of recipes (*n.f.* 16.2 over 14.9). This distribution is possible because *if*-clauses are one of the devices used for the introduction of recipes, in which a condition is described, and then the treatment is offered. This same structure is also observed in the surgical treatise, but it occurs more widely in the collection of recipes.

- (42) IF THE Throte be wounded and the wesand or throte bole partid in what manner so euer it be medle not therwith for it is deathe (surgical treatise, f. 47r).

This will cause abowt vj stooles And **if** thow bidde the poticaire to quiken it well with diagredion it will cause viij or ix. And the dooble receat will cause dooble so many stooles (medical recipes, f. 99v).

Causative clauses are those clauses that express “how one event or state is contingent upon another” (Biber et al. 1999: 779). In H135, these clauses are introduced by causative *for* or *because*, and Table 5.12 shows that their occurrence in the surgical treatise almost doubles that in the recipes (*n.f.* 2.7 over 1.6). Thus, these clauses are used for adding relevant information related to the surgical operation or the recipe being described. As for medical practice, these clauses constitute one more reason to think that empiricism was increasing and that each practitioner would include any kind of information considered to be important for the correct accomplishment of the instructions.

- (43) SOMETIME yt happenithe the Reynes to be woundid, Then I give the counsell not to meddle therwithe **For** it lyethe not in mans cure to heale yt for yt is deadly (surgical treatise, f. 67r).

but the more bread and vinager thow casts in the febler is the plaister
I Counsell that thowe set muche by this plaister **for** it hathe bene ofte
proved but lay it not to all Sores (medical recipes, f. 96v).

Concessive clauses “indicate that the situation in the matrix clause is contrary to expectation in the light of what is said in the concessive clause” (Quirk et al. 1985: 1098; Biber et al. 1999: 779). These clauses occur marginally in H135, being only found in the collection of recipes. In (44), the concessive clause is used for assuring that the water is so good that no matter how long the patient has been without sight.

- (44) A pretious water for sore eies or for him that hathe lost his sight
althoughe it be by the space of. x. yeres, if ther be any possibilitie
therin (medical recipes, f. 76r).

Finally, the other adverbial clauses have been included under the category ‘other adverbials’. This category includes adverbial clauses introduced by adverbs such as *while*, *whilst*, *whereby*, *so that* and *as long as*. As observed in Table 5.12, the frequency of all these adverbs together is three times higher in the surgical treatise (*n.f.* 3.7 over 1.2), a fact demonstrating that the surgical treatise is more elaborated than the collection of recipes.

- (45) IF THE breakinge of the pane be greate and the wounde aboue is
straite **so that** thow cannot be certeyne of the Quantitie of breking
Then put in the finger and fele diligentlie how muche the breking is
(surgical treatise, f. 35r).

and throw a litill salt theron then take furthe thy honie **while** it is
warne and vpon that trencher maike therof four rolls as long but not
so big as thy litle finger (f. 78r).

The occurrence of adverbials in H135 sheds light on the elaboration of discourse in early Modern English medical writing, reaching three conclusions: first, adverbial subordination as a whole is more widely witnessed in the surgical treatise



(*n.f.* 21.3 over 19.5); second, conditional clauses (*n.f.* 14.9 and 16.2 in the surgical treatise and the collection of recipes, respectively) are somewhat balanced in both text types whereas causative adverbial subordination is more widely witnessed in the surgical treatise (*n.f.* 2.7 over 1.6); and third, the occurrence of concessive adverbial subordination is negligible (*n.f.* 0 and 0.5 in the surgical treatise and the collection of recipes, respectively).

Linguistic features	Surgical treatise		Medical recipes	
	Raw	n.f.	Raw	n.f.
Conditional adverbial subordination	286	14.9	315	16.2
Causative adverbial subordination	52	2.7	32	1.6
Concessive adverbial subordination	-	-	10	0.5
Other adverbial subordination	71	3.7	23	1.2
Total	409	21.3	380	19.5

Table 5.12. Adverbial clauses in H135

5.3.2.3.4.4. Participial clauses

The last subgroup belonging to dependent clauses consists of participial clauses. According to Biber (1988: 233), these clauses are more frequently found in writing than in speech, where they are used for integration and structural elaboration. In H135, only present participial post-nominal clauses and present and past participial adverbial clauses have been found.

Linguistic features	Surgical treatise		Medical recipes	
	Raw	n.f.	Raw	n.f.
Present participial post-nominal clauses	48	2.5	16	0.8
Past participial post-nominal clauses	-	-	-	-
Present participial adverbial clauses	17	0.9	41	2.1
Past participial adverbial clauses	28	1.5	66	3.4
Total	93	4.9	123	6.3

Table 5.13. Participial clauses in H135

As for the distribution of present participial post-nominal clauses in H135 (46), their distribution is three times higher in the surgical treatise than in the recipes (*n.f.* 2.5 over 0.8). According to Thompson (1983: 51), these clauses are used for depictive functions, that is, for the elaboration of descriptions by means of the creation of mental images. Thus, we find that this process of depiction is a resource more frequently witnessed in the surgical treatise if compared with the collection of recipes.

- (46) Then meng with yt the foresaid oyle and set it againe on the fyer and make yt to boyle **strewing** in all the powder of litarge ouer (surgical treatise, f. 49r).

then power it again vpon the said wine doing so vij tymes then take the said wax and melt it on the fier **mixing** with it a handfull of breck finelye beaten (medical recipes, f. 118v).

Present and past participial adverbial clauses function as reduced relative clauses, and they have been identified as devices used for producing “highly informational discourse under severe time constraints” (Biber 1988: 233: see also Janda 1985: 447). In H135, the occurrence of these kinds of constructions is twice more frequent in the recipes than in the surgical treatise (*n.f.* 2.1 and 3.4 over 0.9 and 1.5, respectively). Therefore, such a distribution is perfectly understandable as the text in the collection of recipes is less elaborated than the surgical treatise in terms of structure, sharing many of the linguistic features typical of spoken discourse.¹⁹⁷

- (47) And if this oyntment will not heale the kanker then strew theron a powder which is good to fret awaie cankers **Being** in smow placs and maid in thus manner (surgical treatise, f. 50v).

¹⁹⁷ It must be noted that even though present and past participial adverbial clauses are a simplified version of relative clauses, this increases the level of linguistic complexity, as more processing is needed on the part of the reader.

And when thou putes it into the water thus reched thou shalt see the mercurie dissolved into the water and the goold **lying** in the bottom of the water in a calp (recipe collection, f. 113r).

- (48) And if it be corrupt but parte then haue awaie all the corruption therof with paring of some instrument **maid** therefore (surgical treatise, f. 71v).

and ij or iij Rots of read fennell the pith **taken** out bynde the herbs together and let them sethe well then taik them vp and strew them into the potage (medical recipes, f. 98r).

5.3.3. Discussion

The analysis of the occurrence of the linguistic features indicating reduced and increased linguistic complexity not only has shed light on the levels of complexity in the text types under analysis, but also it has revealed their most characteristic features as text types belonging to the same genre. As such, these text types have been found to share certain linguistic features that are common in academic writing, while others have been more widely witnessed in one of the two. As far as the linguistic features related to reduced linguistic complexity are concerned, these have been more widely witnessed in the collection of recipes, a fact that was initially expected as this text type is considered to be more informal than the surgical treatise. Consequently, linguistic features such as the pro-verb *do*, the pronoun *it*, demonstrative pronouns and clausal coordination occur almost twice as many times in the collection of recipes if compared with the surgical treatise.

When it comes to the linguistic features associated with increased linguistic complexity, the surgical treatise outnumbers recipes in some dimensions and *viceversa*, that is, the surgical treatise shows higher complexity in some aspects and the collection of recipes does so in others. As shown in Tables 5.14 and 5.15, the surgical treatise obtains higher scores in the integration of structure, the occurrence of passive constructions, structural elaboration on reference, and the

use of complement clauses and adverbial clauses. The collection of recipes, in turn, shows a higher occurrence of linguistic features associated with less specified reference, fragmented structure, lexical specificity and the use of participial clauses. For these reasons, we conclude that the surgical treatise clearly features a higher level of linguistic complexity if compared with the recipes.

Interestingly enough, however, the counting of these linguistic features has also revealed some characteristic features of the text types under analysis. Thus, within the features related to reduced complexity, it is demonstrated that the pronoun *it*, demonstrative pronouns and clausal coordination are more widely witnessed in remedies, while the occurrence of pro-verb *do* is somewhat balanced. Among those elements associated with increased linguistic complexity, three different tendencies have been observed:

1. Characteristic linguistic features of the medical genre: high frequency of nouns and adjectives, use of infinitive clauses and conditional adverbial subordination.
2. Characteristic linguistic features of the surgical treatise: high frequency of prepositions, nominalizations, phrasal coordination, passives, “pied piping” relative clauses, relative clauses on object position, *that* complement clauses to adjectives and verbs, causative adverbial subordination and present participial postnominal clauses.
3. Characteristic linguistic features of the medical recipes: *that* relative clauses in subject position and present and past participial clauses.

	Surgical treatise	Medical recipes
Less specified reference	33	45.8
Fragmented structure	5.6	8.5

Table 5.14. Linguistic features associated with reduced linguistic complexity (*n.f.*)

	Surgical treatise	Medical recipes
Integrated structure	478.2	404.7
Lexical specificity	13.5	15.2
Passive constructions	16.2	6
Structural elaboration on reference	3.9	3.2
Complement clauses	21.1	17.6
Adverbial clauses	21.3	19.5
Participial clauses	4.9	6.3

Table 5.15. Linguistic features associated with increased linguistic complexity (*n.f.*)¹⁹⁸

¹⁹⁸ The linguistic features associated to lexical specificity have not been normalized as they are individual countings of each text type.

CHAPTER 6

CONCLUSIONS

The present PhD dissertation has studied early Modern English scientific writing, focusing on the edition, corpus compilation and assessment of linguistic complexity of two early Modern English medical text types, i.e. a surgical treatise and a collection of medical recipes. For the purpose, a hitherto unedited volume, MS Hunter 135 (henceforth H135) was selected, of which ff. 34r-121v have been the basis of this research. The following conclusions have been obtained.

The opening chapter of the present dissertation has analysed the socio-historical context in which H135 was created and existed, that is, Tudor England. This period is characterised by major changes at the level of society, where the economy was not solely based on land and an emerging middle class was taking over the cities (merchants, lawyers and doctors, among others). In the field of medicine, the medical marketplace was integrated by trained practitioners, who made a living with the practice of medicine; and amateur practitioners, who acquired their knowledge from books or hearsay. Among these practitioners, women also played an important role, as they were aware of quite a great deal of remedies and other treatments for different diseases, being able to heal members of their family or neighbours saving the money that a physician, surgeon or apothecary would have charged.

Scientific writing was also affected by the evolution of science, from scholasticism to empiricism, that is, from a construal of science that was exclusively based on classical authors to a science based on observation through induction. From a linguistic point of view, this evolution had an effect on the way knowledge was transmitted, and the texts under study in the present dissertation demonstrate the new way in which scientific writing was created, becoming fully

independent of classical authors and relying almost exclusively on empiricism. The surgical treatise is a clear example of the movement towards empiricism and the prestige that surgery started to acquire from the sixteenth century onwards, as the treatise contains not only instructions to carry out surgical operations but also recipes for the preparation of medicines and healing salves.

Chapter 2 has dealt with the contents, ownership and physical description of the volume. The volume was used for different purposes (that is the reason why it contains three different indexes) and by different people (the owners of the manuscript: William Hunter, Leonardus Cooke and Henry Swinburne). In relation to the physical features of the volume, it has been demonstrated that the volume was written towards the middle of the sixteenth century. Finally, the analysis of punctuation has shown that it is employed differently depending on the text type. Thus, punctuation is used mainly at sentential and clausal level in the surgical treatise, while it is more widely witnessed at phrase level in the collection of recipes.

Chapter 3 has provided the editorial principles followed in the semi-diplomatic transcription of the hitherto unedited H135. In this chapter, the importance of (semi)diplomatic transcriptions for linguistic research has been highlighted, an importance that has been demonstrated in the following chapters with the application of corpus linguistics tools. In addition, an introduction to textual scholarship and scholarly editing precedes. The chapter ends with the semidiplomatic edition of H135, constituting a valuable resource for the study of early Modern English medical writing. The potentiality of this edition could be seen from two different perspectives. On the one hand, it has been used as the input for the compilation of an early Modern English corpus of scientific writing, hence allowing for linguistic studies concerned with different topics in the history of English (see Chapter 5). On the other hand, the contents of the volume can be now better disseminated, as there is no need to be a specialist in early Modern English palaeography in order to be able to read the treatises and, therefore, other

areas of research can be also benefitted (history of medicine, among others). Furthermore, the provided glossary helps the reader understand the content of the text and, from a linguistic point of view, it allows the linguist to observe the different allomorphs together with their number of hits, a material which stands out for its potential for research, especially from the point of view of the spelling.

Chapter 4 has focused on corpus linguistics and, more specifically, on the importance of corpus linguistics applied to historical linguistics. As stated, corpora did not have as great an impact on historical linguistics as they did in other branches of linguistics, historical linguists exclusively depending on historical texts for their research. However, what did improve the proliferation of corpora was, for instance, the quantitative aspect of those analyses which, combined with qualitative approaches, certainly improved the quality of research in historical linguistics. The main restrictions of historical corpora have been also outlined: the difficulties in the compilation of the material, the scarcity or non-existence of material belonging to genres or subgenres in different historical periods and the shortcomings to obtain accurate sociolinguistic information from the sources. Besides, the advantages and disadvantages of compiling a historical corpus out of (early) printed versions of the texts as opposed to manuscript material have been commented on, the latter being the preferred option from a purely linguistic viewpoint. Finally, the *Málaga Corpus of Early Modern English Scientific Prose* has been presented and spelling variation has been identified as another of the problems when compiling a historical corpus, as it complicates the labour of automatic softwares with different purposes, i.e. CLAWS. In this vein, VARD has been proposed as the ideal tool for normalising the variant spellings in H135 as it enhances the accuracy of CLAWS almost a 20%, hence the importance of this pre-processing stage.

The analysis of the levels of linguistic complexity in Chapter 5 has been divided into four different subsections. First, a theoretical framework of the topic has been provided, with the definition of the term ‘complexity’. After this

introduction, the study of the linguistic complexity of H135 has been based on the analysis of macro-linguistic factors (text structure and text layout) and micro-linguistic factors (linguistic features denoting reduced linguistic complexity and linguistic features denoting increased linguistic complexity).

When it comes to the analysis of macrolinguistic factors, the text structure in the surgical treatise is more elaborated than that in the collection of recipes, as the former shows more rhetorical moves than the latter. In addition, titles are much simpler in the collection of recipes, where it is usually rendered with the name of the ailment to be cured. The surgical treatise has proven more complex because its structure is unpredictable in terms of rhetorical moves (a complication may arise, an alternative treatment may be offered, etc.). The surgical treatise is also more complex than the collection of recipes in terms of text layout for two different reasons. First, the surgical treatise lacks a prologue in which its contents are explained, while the collection of recipes does. Second, titles in the collection of recipes are much more specific, allowing the reader to quickly find what he/she wants to read.

When it comes to the analysis of linguistic features denoting reduced complexity, the study has corroborated that they are more frequent in the collection of recipes if compared with the surgical treatise. Following this thread, the linguistic features denoting increased complexity are more widely distributed in the surgical treatise with only a few exceptions. For these reasons, the surgical treatise has a higher level of linguistic complexity than the collection of recipes at microlinguistic level.

Finally, the assessment of those linguistic features has also revealed some characteristic linguistic features of the text types under analysis. Thus, the high frequency of prepositions, nominalizations, phrasal coordination, passives, “pied piping” relative clauses, relative clauses in object position, *that* complement clauses to adjectives and verbs, causative adverbial subordination and present

participial postnominal clauses have been identified as characteristic of the surgical treatise; while *that* relative clauses in subject position and present and past participial clauses are characteristic of the collection of recipes.



CHAPTER 7

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